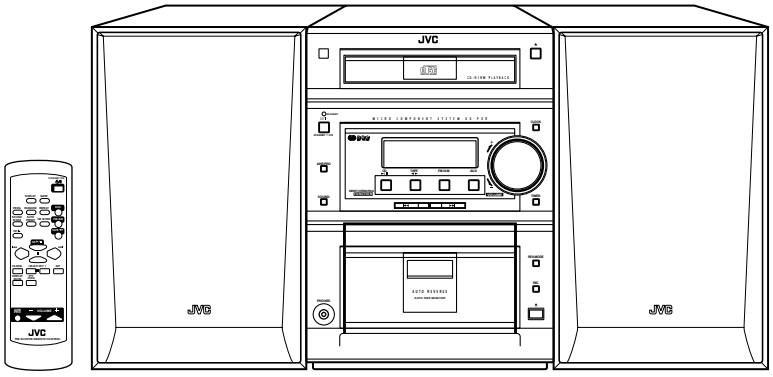
JVC

SERVICE MANUAL

MICRO COMPONENT SYSTEM

UX-P3R



Area Suffix

B ---------- U.K.
E ---- Continental Europe
EN ------ Northern Europe

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No.20945
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Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.

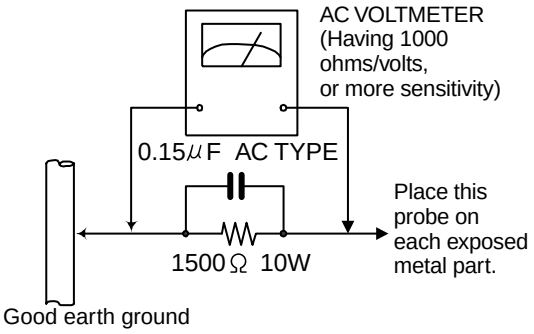
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.

4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.

   ● Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

   ● Alternate check method
   Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.
   Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (⬤) or identified by the "⚠" mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Safety precautions (U.K only)

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (⚠) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.1. Grounding to prevent damage by static electricity

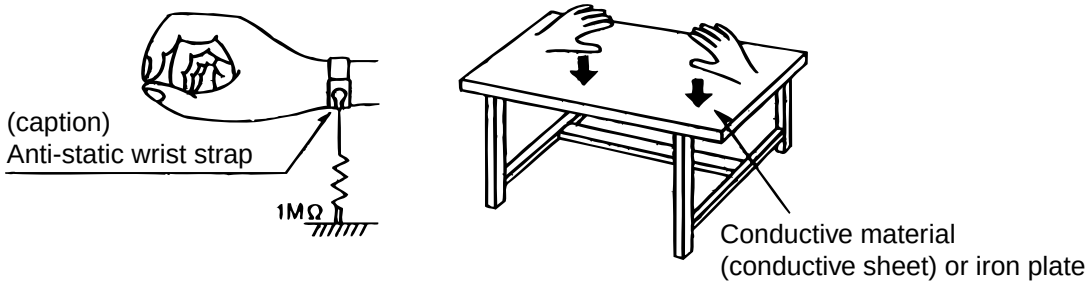
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

1.1.1. Ground the workbench

1. Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



1.1.3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.2. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.

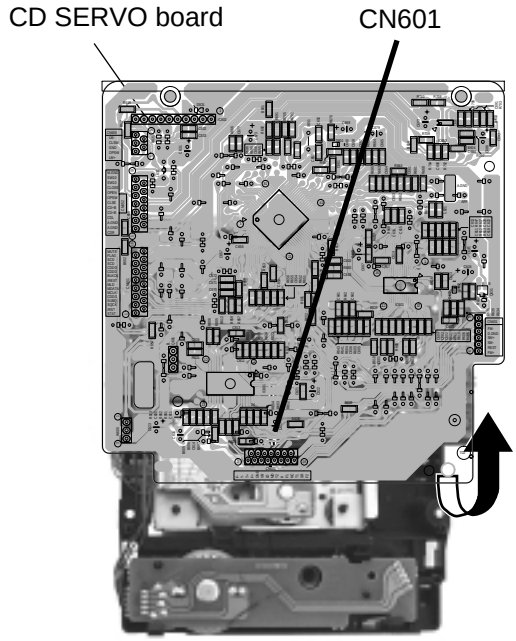
3. Handle the flexible cable carefully as it may break when subjected to strong force.

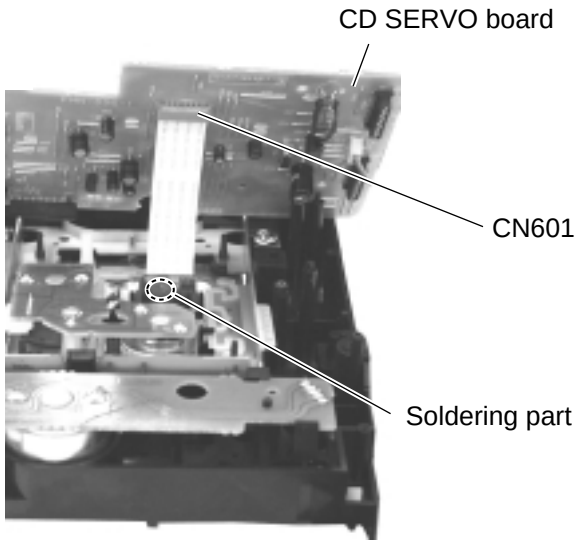
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

1.3. Cautions on removing the CD traverse unit

* For removing the CD traverse unit in detail, refer to the "Adjustment Method" section of this manual.

1. Before disconnecting the flexible wire from the connector CN601 on the CD SERVO board, solder the part shown in the figure below.
   (Note:If the flexible wire is disconnected from the CN601 without presoldering, it may cause breakdown of the CD pickup assembly.)
2. When reassembling the CD traverse unit, be sure to remove the solder from the soldered part after reconnecting the flexible wire to the CN601.





Important for laser products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

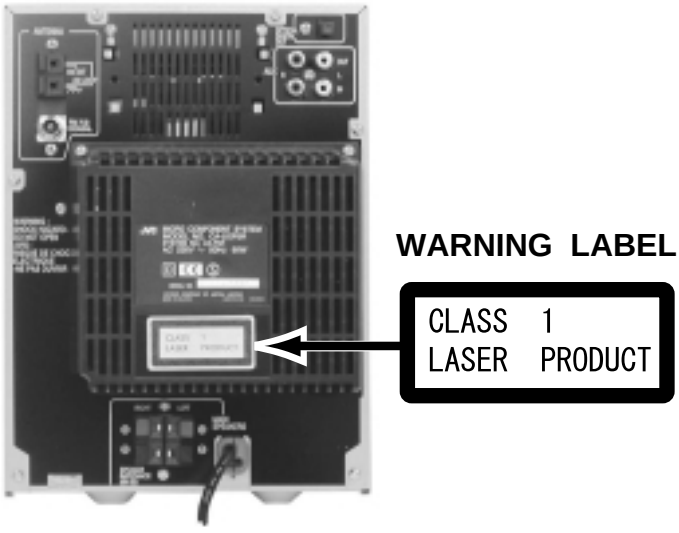
VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS



Disassembly method

<Main body>

■Removing the metal cover (See Fig.1 and 2)

1. Remove the six screws **A** on the back of the body.
2. Remove the two screws **B** on the side of the body.
3. Pull both sides of the metal cover outward and lift the rear part of the cover.

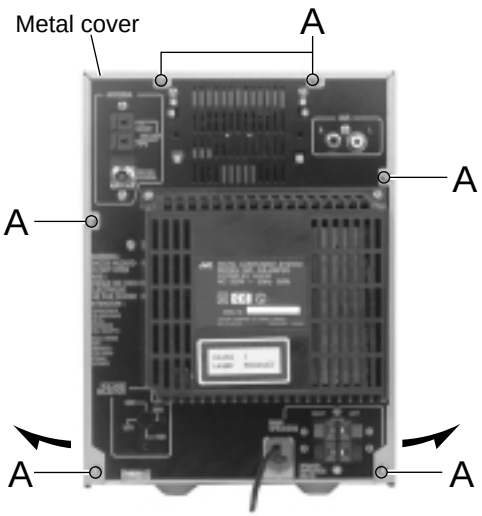


Fig.1

■Removing the rear cover (See Fig.3)

・ Prior to performing the following procedure, remove the metal cover.

1. Remove the two screws **C** on the back of the body.

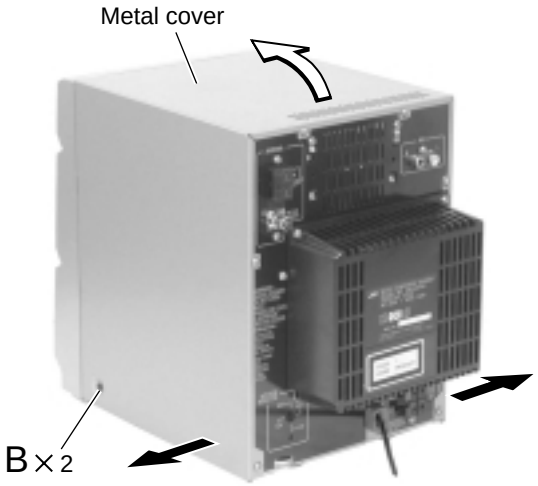


Fig.2

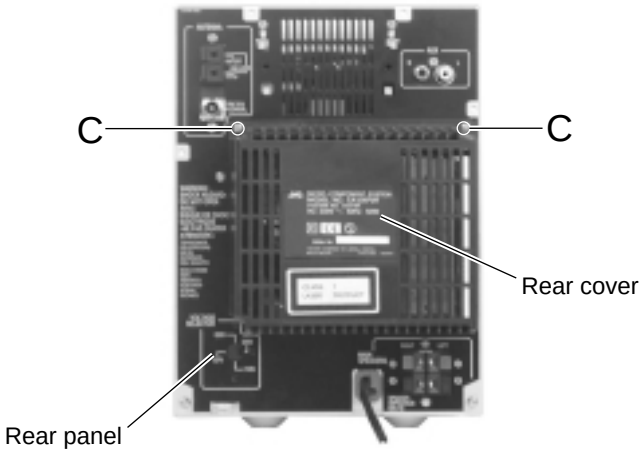


Fig.3

■Removing the tuner board (See Fig.4 and 5)

・ Prior to performing the following procedure, remove the metal cover.

1. Disconnect the card wire from connector CN1 on the tuner board.
2. Remove the screw **D** on the right side of the body.
3. Remove the two screws **E** on the rear panel.

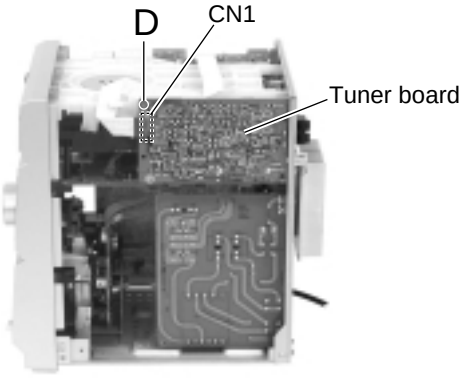


Fig.4

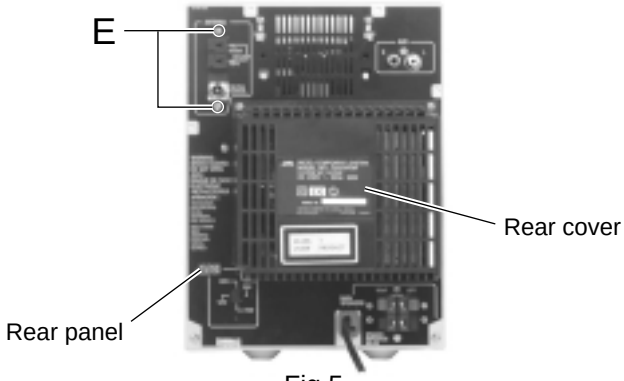


Fig.5

■Removing the CD mechanism assembly (See Fig.6 to 8)

・ Prior to performing the following procedure, remove the metal cover and the rear cover.

1. Disconnect the card wires from connector CN903, CN904 on the main board on the upper side of the body.
2. Remove the screw **D** attaching the tuner board and the CD mechanism on the right side of the body.
3. Remove the two screws **F** attaching the rear panel and the CD mechanism on the back of the body.
4. Move the rear part of the CD mechanism assembly upwards to disengage the two joints **a** and release from the rear panel.

   Pull the front panel toward the front and move the rear part of the CD mechanism assembly upwards. Then pull out the CD mechanism assembly from the front panel backward.

REFERENCE: To remove the CD mechanism assembly efficiently, disconnect the card wireconnecting the tuner board with the main board in advance.

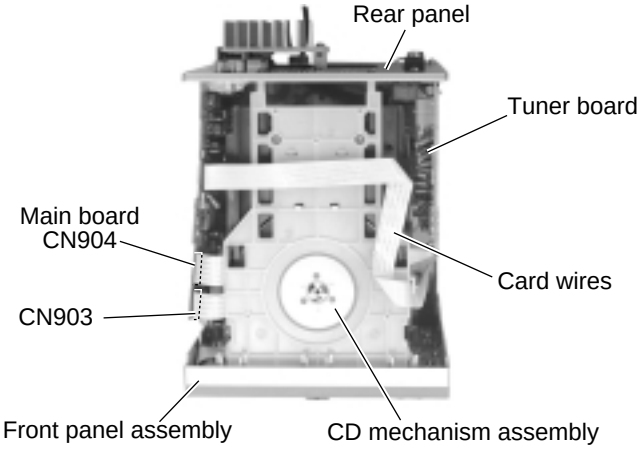


Fig.6

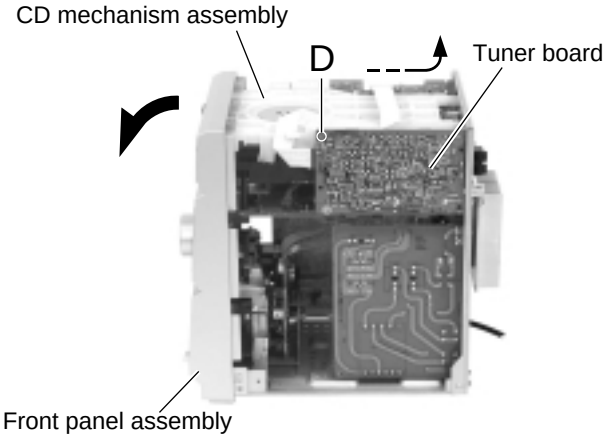


Fig.7

■ Remove the rear panel (See Fig.8 to 11)

・ Prior to performing the following procedure, remove the metal cover, rear cover and the CD mechanism assembly.

1. Remove the five screws **G** attaching the rear panel.
2. Disconnect the card wire from CN902 on the main board.
3. Disengage the lower two joints **b** on each side of the rear panel using a screwdriver and remove the rear panel backward (The tuner board and the fan will be also detached.Remove them as needed).

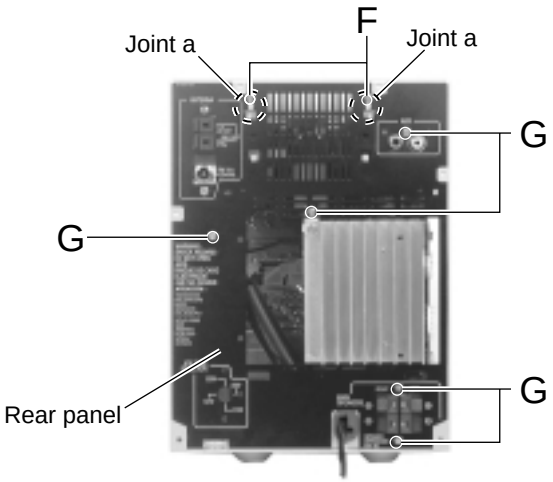


Fig.8

■ Removing the fan (See Fig.9 and 12)

・ Prior to performing the following procedure, remove the metal cover, the rear cover andthe CD mechanism assembly.

1. Disconnect the wire from connector CN908 on the main board.
2. Remove the two screws **H** on the back of the body.
3. Move the fan upwards to disengage the four joints **c** and release from the rear panel.

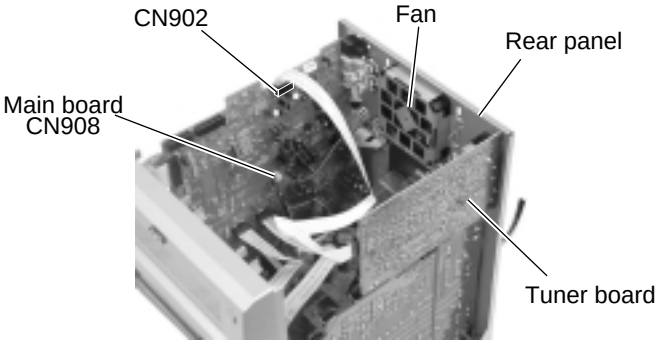


Fig.9

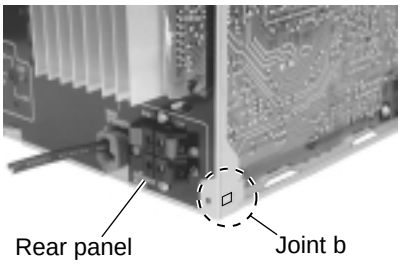


Fig.10

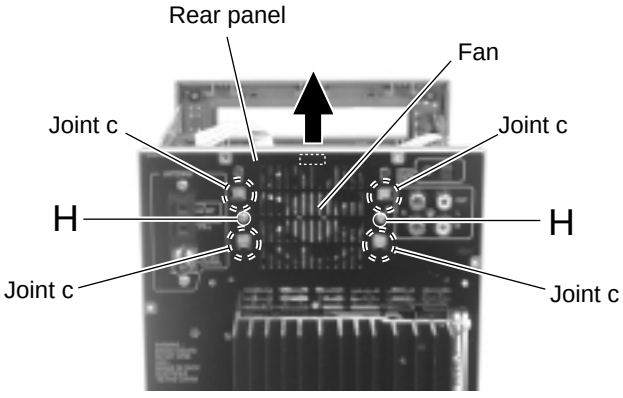


Fig.12

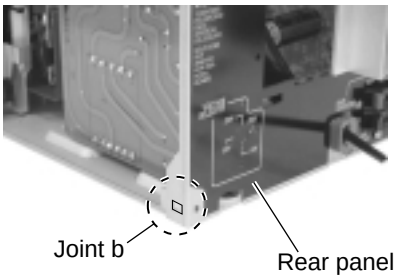


Fig.11

■Removing the main board / heat sink (See Fig.13 to 15)

・ Prior to performing the following procedure, remove the metal cover, the rear cover, the CD mechanism assembly and the rear panel.

1. Disconnect the card wire from connector CN900, CN901 and CN931 on the main board.

   Disconnect the wire from CN906 and FW903 respectively.

2. Disconnect the wire from W950 on the underside of the main board.

3. Remove the two screws **I** attaching the main board to the chassis on the left side ofthe body and disengage the two joints **c**.

4. Remove the two screws J attaching the heat sink to the main board.

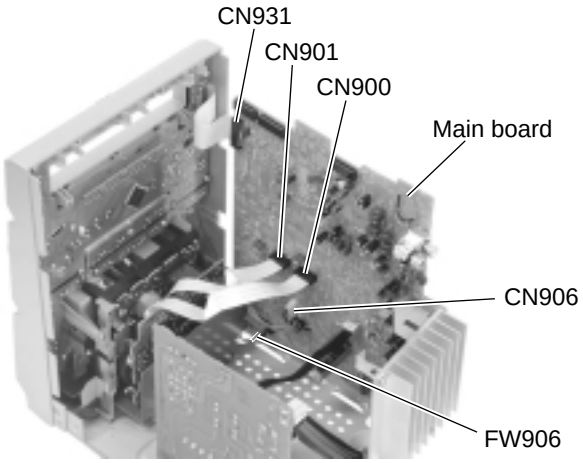


Fig.13

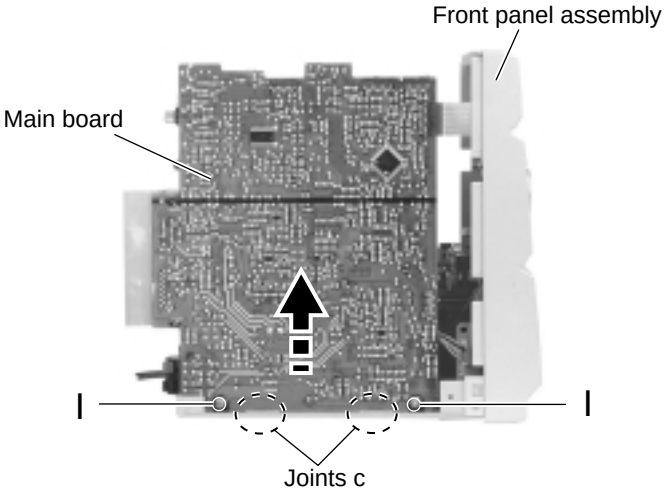


Fig.14

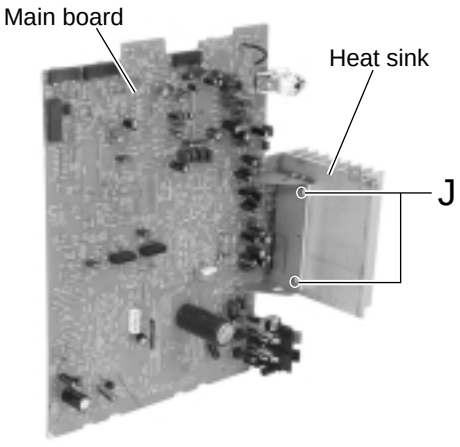


Fig.15

■Removing the power transformer assembly (See Fig.16 and 17)

・ Prior to performing the following procedure, remove the metal cover, the rear cover, the CD mechanism assembly and the rear panel.

1. Remove the cord stopper upwards on the back of the body.
2. Disconnect the power cord from connector J1000 on the board of the power transformer assembly.
3. Disconnect the wire from connector FW903 on the main board.
4. Remove the four screws **K** attaching the power transformer assembly.

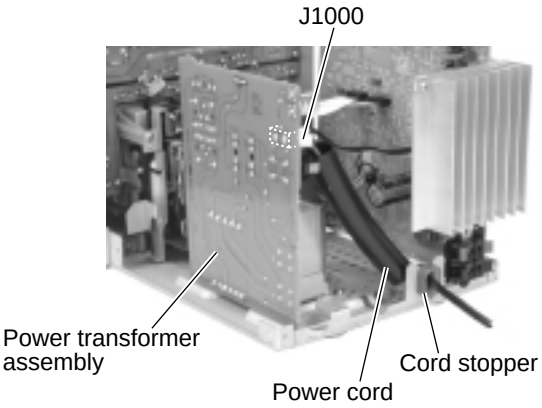


Fig.16

■Removing the front panel assembly (See Fig.13, 18 and 19)

・ Prior to performing the following procedure, remove the metal cover, the rear cover, the CD mechanism assembly and the rear panel.

1. Disconnect the card wire from connector CN900, CN901 and CN931 on the main board (Refer to Fig.13).
2. Disconnect the wire from CN906 and FW903 respectively (Refer to Fig.13).

   Disconnect the wire from W950 on the underside of the main board.
3. Remove the two screws **L** on each lower side of the body.
4. Release the lower joints **d** on each side of the body using a screwdriver. Pull out thefront panel assembly toward the front.

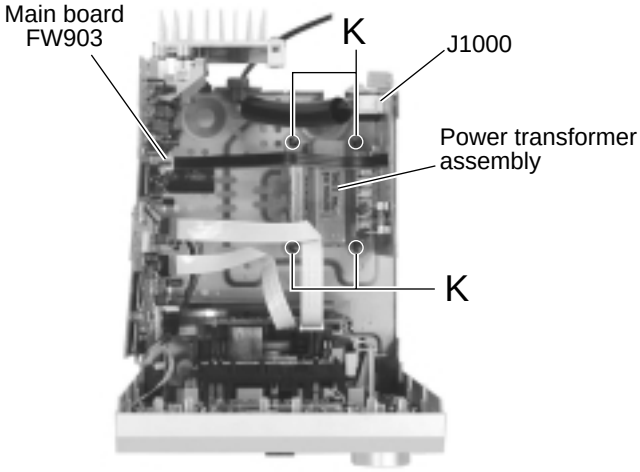


Fig.17

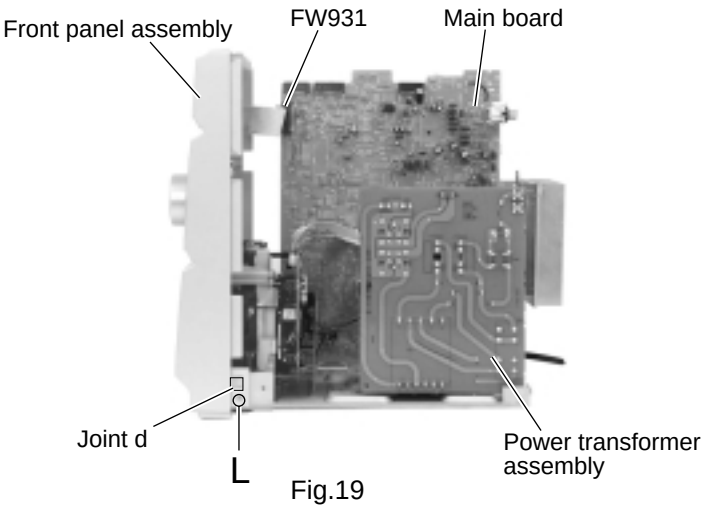


Fig.19

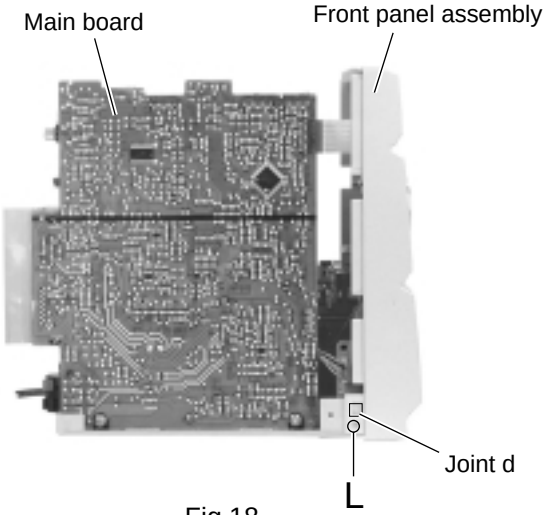


Fig.18

■Removing the display board / switch board (See Fig.20 to 22)

・ Prior to performing the following procedure, remove the front panel assembly.

1. Pull out the VOLUME knob on the front panel.

2. Remove the fifteen screws **M** attaching the display board and the switch board on the back ofthe front panel. Remove the display board with the switch board.

3. Remove the screw **N** attaching the switch board to the LCD holder.

4. If necessary, unsolder the wire extending from connector FW931 on the display board and FW931 on the switch board.

5. If necessary, remove the band bundling the wires extending from the headphone board and the display board.

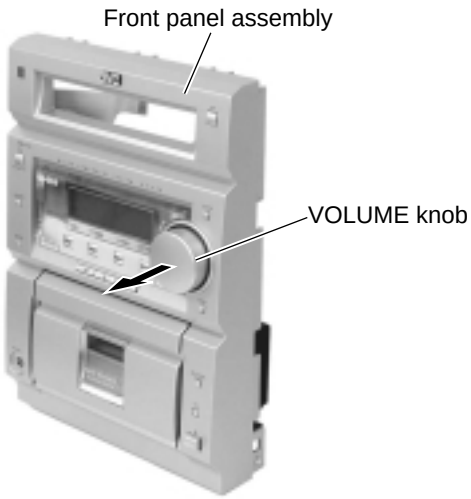


Fig.20

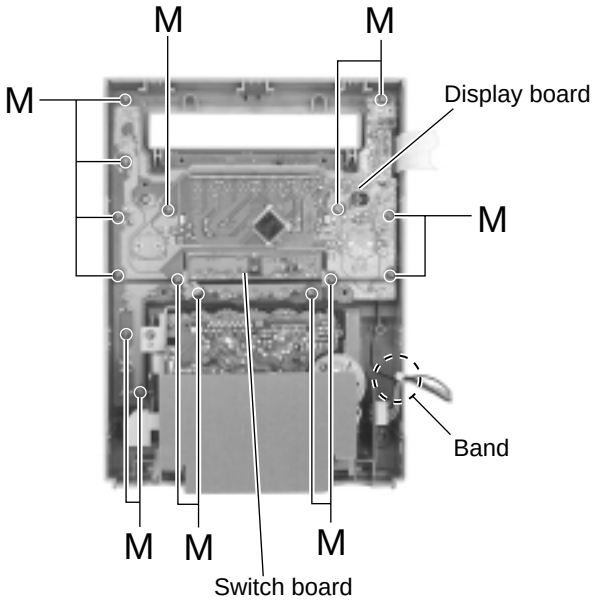


Fig.21

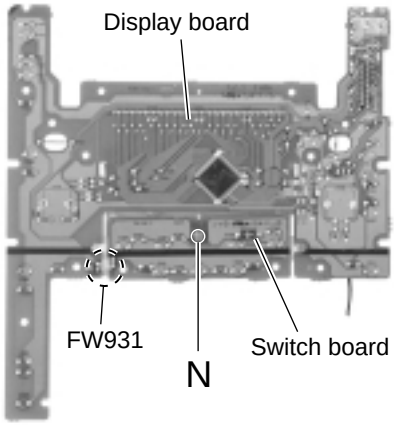


Fig.22

■Removing the headphone board (See Fig.23)

・ Prior to performing the following procedure, remove the front panel assembly.

1. Remove the screw **O** on the back of the front panel.

2. If necessary, remove the band bundling the wire extending from the headphone board and the display board.

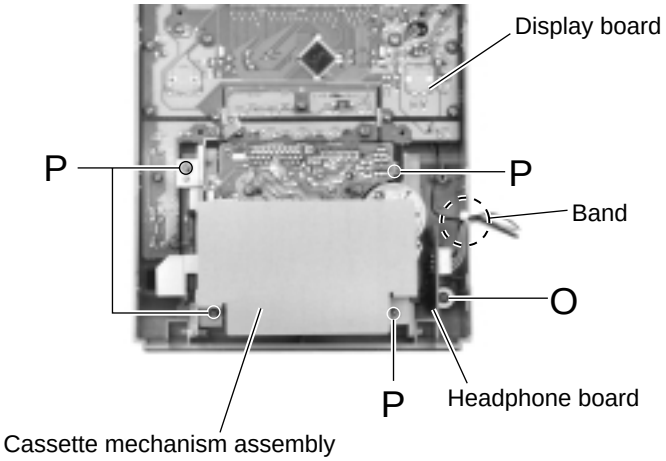


Fig.23

■Removing the cassette mechanism assembly (See Fig.23 and 24)

・ Prior to performing the following procedure, remove the front panel assembly.

1. Press the EJCT button on the front panel to open the cassette door.

2. Remove the four screws **P** on the back of the front panel.

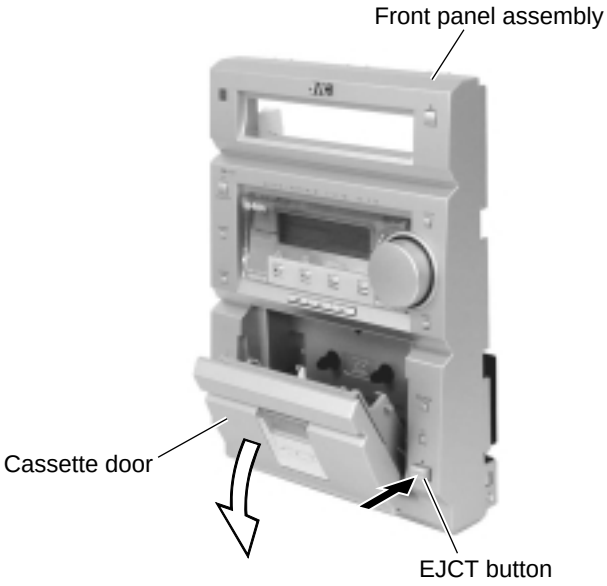


Fig.24

Main adjustment

■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator
   This oscillator should have a capacity to output 0dBs to 600 Ω at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600 Ω
3. Electronic voltmeter
4. Distortion meter
5. Frequency counter
6. Wow & flutter meter
7. Test tape
   VTT703L : Head azimuth
   VT712 : Tape speed and running unevenness (3kHz)
   VT724 : Reference level (1kHz)
8. Blank tape
   TYPE Ⅰ: AC-225
   TYPE Ⅱ: AC-514
9. Torque gauge : For play and back tension FWD(TW2111A), REV(TW2121a) and FF/REW(TW2231A)
10. Test disc: CTS-1000

■ Measurement conditions

Power supply voltage
: AC230V (50Hz)----B/E/EE/EN
: AC110/127V/230V(50/60Hz)
: UB/UF/US/UX/U
Reference output : Speaker : 0.775V/4Ω
: Headphone : 0.077V/32Ω
Reference frequency and
input level ---------- 1kHz, AUX : -8dBs
MIX MIC: -54dBs (UB/UF/US/UX/U)
Input for confirming recording and playback characteristics ---------- AUX : -28dBs
Measurement output terminal ------- at Speaker J3002
※ Load resistance ---------- 4Ω

● Radio Input signal

AM frequency ---------- 400Hz
AM modulation ---------- 30%
FM frequency ---------- 400Hz
FM frequency deviation ---------- 22.5kHz

● Tuner section

B/E/EN version
FM Band cover: 87.5～108MHz
MW Band cover: 522～1,629kHz
LW Band cover: 144～288kHz
EE version
FM Band cover: 65～74MHz, 87.5～108MHz
MW Band cover: 522～1,629kHz
LW Band cover: 144～288kHz
UB/UF/US/UX/U version
FM Band cover: 87.5～108MHz
MW Band cover: 531～1,602kHz, 530～1,710kHz
SW Band cover: SW1 2.3～6.995MHz
: SW2 7～21.85MHz
Voltage applied to tuner ---------- +B : DC5.7V
VT : DC 12V
Reference measurement
output ---------- 26.1mV(0.28V)/3Ω
Input positions ------- AM : Standard loop antenna
FM : TP1 (hot) and TP2 (GND)

● Standard measurement position of volume

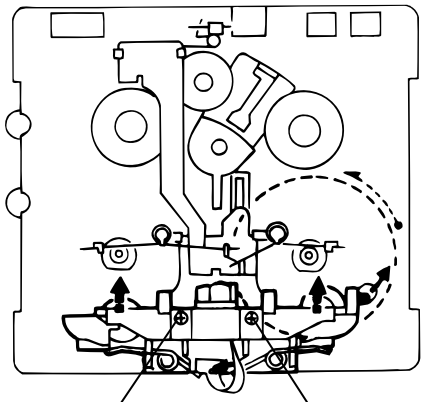
Function switch ---------- to Tape
Beat cut switch ---------- to Cut
Super Bass/Active hyper Bass ---------- to OFF
Bass Treble ---------- to Center
Adjustment of main volume to reference output
VOL : 28

Precautions for measurement

1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MIX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
7. In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an BTL system.
8. For connecting a dummy resistor when measuring the output, use the wire with a greater code size.
9. Whenever any mixed tape is used, use the band pass filter (DV-12).

<<Arrangement of Adjusting Position>>

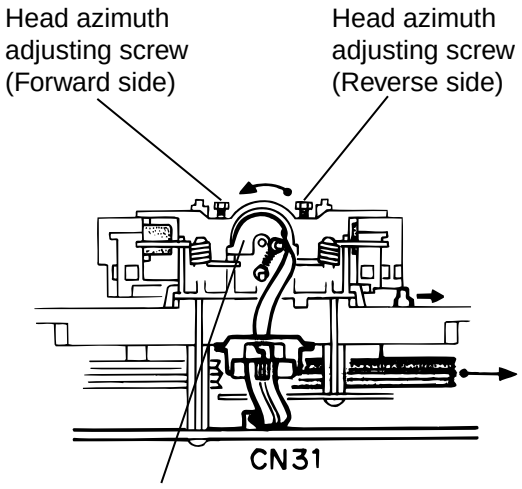
Cassette mechanism section



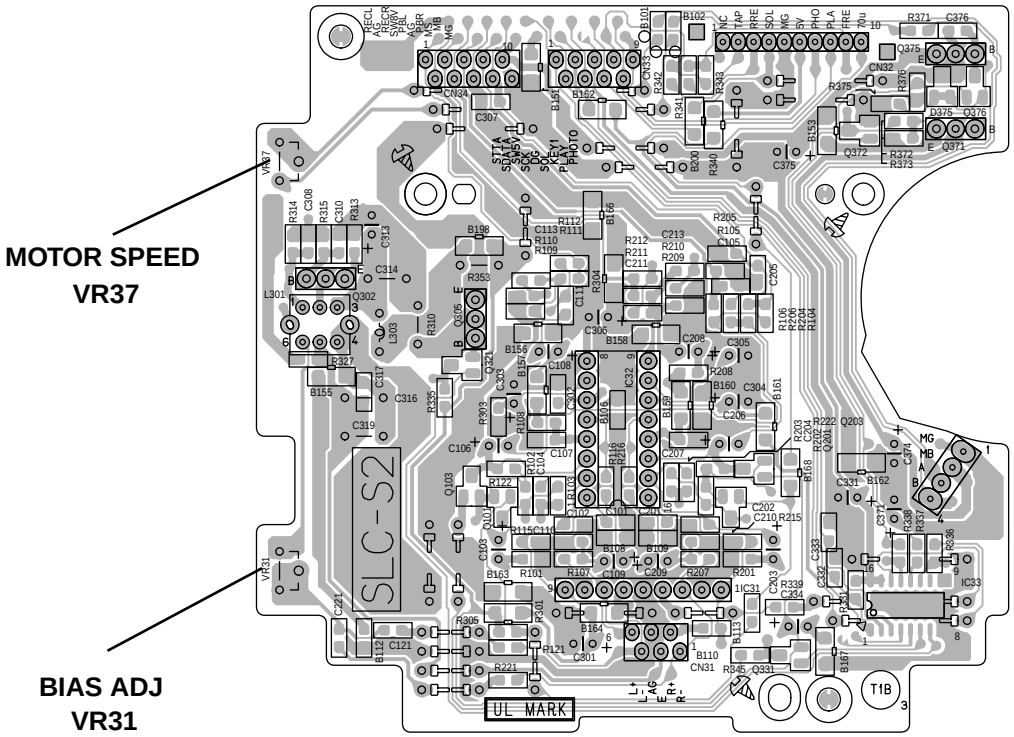
Head azimuth adjusting screw (Forward side)

Head azimuth adjusting screw (Reverse side)

Cassette mechanism section (Back side)


Head azimuth adjusting screw (Forward side)
Head azimuth adjusting screw (Reverse side)
CN31
Playback/Recording & eraser head

Cassette AMP board



■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Confirmation of head angle	Test tape : VTT703L (8kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 4Ω) : Headphone terminal	1 Playback the test tape VTT703L (8kHz) 2 With the recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum. After adjustment, lock the head azimuth at least by half turn. 3 In either case, this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape : VT712 (3kHz) Measurement output terminal : Headphone terminal	Adjust VR37 so that the frequency counter reading becomes 2,940~3,090Hz ± when playing back the test tape VT712 (3kHz) with playback and recording mechanism after ending forward winding of the tape.	Tape speed of deck : 2,940 ~ 3,090Hz	VR37

■ Reference Values for Confirmation Items

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Difference between the forward and reverse speed	Test tape : VT712 (3kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 4 Ω) Measurement output terminal : Headphone	When the test tape VT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanism should be 6.0Hz or less.	6.0Hz or less	Head azimuth screw
Wow & flutter	Test tape : VT712 (3kHz) Measurement output terminal : Headphone terminal	When the test tape VT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of wow & flutter should be 0.25% or less (WRMS).	0.25% or less (WRMS)	

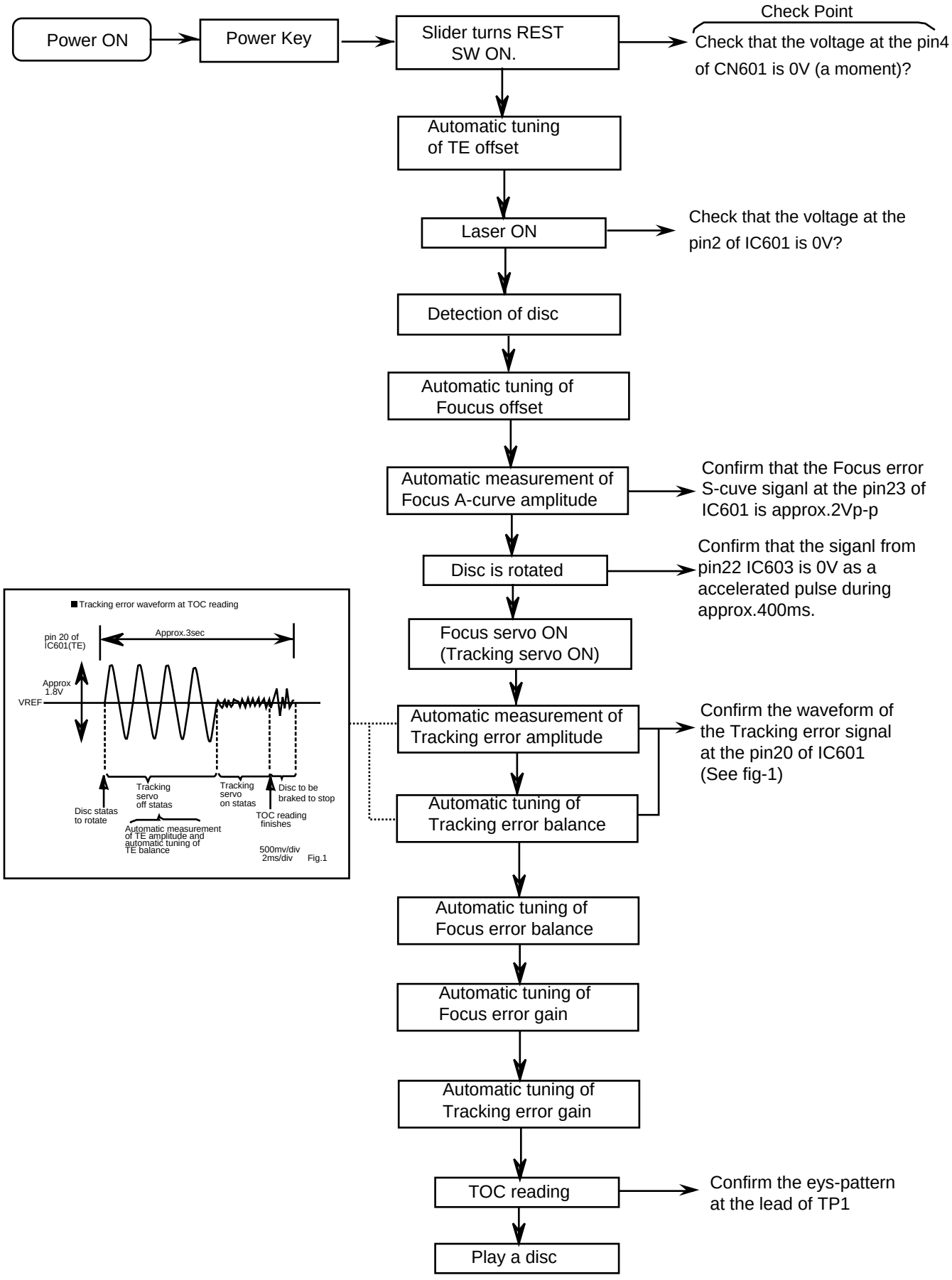
■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Adjustment of recording bias current (Reference Value)	・Mode: Forward or reverse mode ・Recording mode ・Test tape : AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ Measurement output terminal : Both recording and headphone terminals	1 With the recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ), and set the mechanism to the recording and pausing condition in advance. 2 After connecting 100 Ω in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals. 3 After resetting the [PAUSE] mode, start recording. At this time, adjust VR31 for Lch and VR32 for Rch so that the recording bias current values become 4.0 μA (TYPE Ⅰ) and 4.20 μA (TYPE Ⅱ).	AC-225 : 4.20 μA AC-514 : 4.0 μA	VR31
Adjustment of recording and playback frequency characteristics	Reference frequency : 1kHz and 10kHz (REF.: -20dB) Test tape : AC-514 to TYPE Ⅱ Measurement input terminal : OSC IN	1 With the recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ), and set the mechanism to the recording and pausing condition in advance. 2 While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the rape. 3 While recording and playback the test tape in TYPE Ⅱ, adjust VR31 for Lch and VR32 for Rch so that the output deviation between 1kHz and 10kHz becomes -1dB±2dB.	Output deviation between 1kHz and 10kHz : -1dB±2dB	VR31

■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Recording bias frequency	Forward or reverse ・Test tape : TYPE Ⅱ (AC-514) ・Measurement terminal : BIAS TP on P.C. board	1 While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2 With the recording and playback mechanism, load the test tape. (AC-514 to TYPE Ⅱ), and set the mechanism to the recording and pausing condition in advance. 3 Confirm that the BIAS TP frequency on the P.C. board is 100kHz ± 6kHz.	100 kHz ±6 kHz	
Eraser current (Reference value)	Forward or reverse ・Recording mode ・Test tape : AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ Measurement terminal : Both of the eraser head terminals	1 While recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ), and set the mechanism to the recording and pausing conditions in advance. 2 After setting to the recording conditions, connect 1W in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals.	TYPE Ⅱ : 120 mA TYPE Ⅰ : 75 mA	

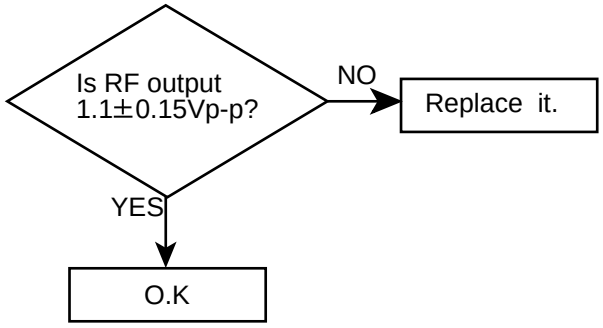
Flow of functional operation until TOC read (CD)


Power ON
Power Key
Slider turns REST SW ON.
Check Point
Check that the voltage at the pin4 of CN601 is 0V (a moment)?
Automatic tuning of TE offset
Laser ON
Check that the voltage at the pin2 of IC601 is 0V?
Detection of disc
Automatic tuning of Foucus offset
Automatic measurement of Focus A-curve amplitude
Confirm that the Focus error S-cuve siganl at the pin23 of IC601 is approx.2Vp-p
Disc is rotated
Confirm that the siganl from pin22 IC603 is 0V as a accelerated pulse during approx.400ms.
Focus servo ON (Tracking servo ON)
Automatic measurement of Tracking error amplitude
Confirm the waveform of the Tracking error signal at the pin20 of IC601 (See fig-1)
Automatic tuning of Tracking error balance
Automatic tuning of Focus error balance
Automatic tuning of Focus error gain
Automatic tuning of Tracking error gain
TOC reading
Confirm the eys-pattern at the lead of TP1
Play a disc
■ Tracking error waveform at TOC reading
pin 20 of IC601(TE)
Approx.3sec
Approx 1.8V
VREF
Disc statas to rotate
Tracking servo off statas
Automatic measurement of TE amplitude and automatic tuning of TE balance
Tracking servo on statas
TOC reading finishes
Disc to be braked to stop
500mv/div
2ms/div
Fig.1

Maintenance of laser pickup

(1) Cleaning the pick up lens
Befor you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

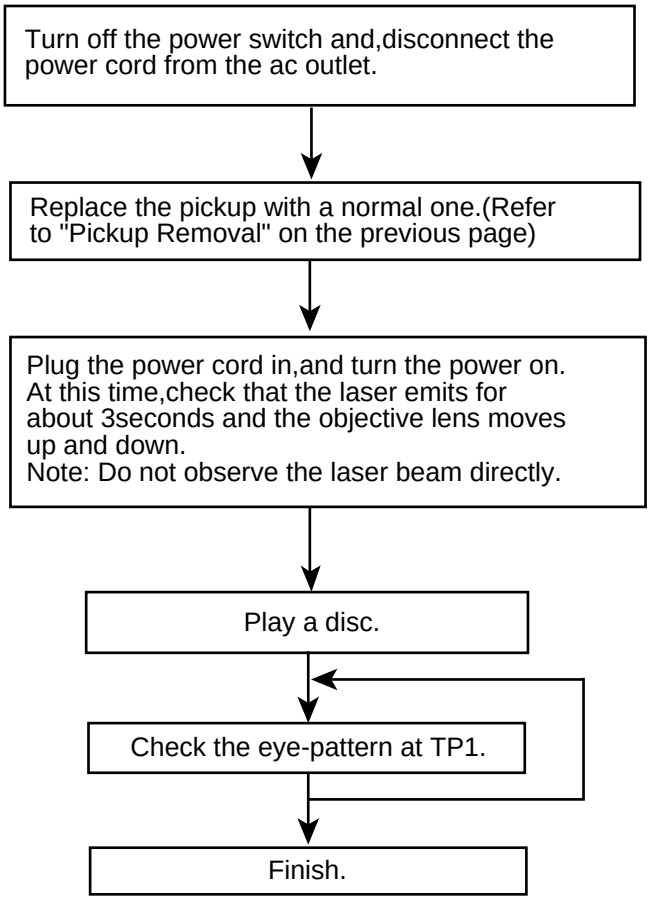
(2) Life of the laser diode (Fig.1)
When the life of the laser diode has expired, the following symptoms wil appear.
(1) The level of RF output (EFM output:amplitude of eye pattern) will below.



(Fig.1)

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.

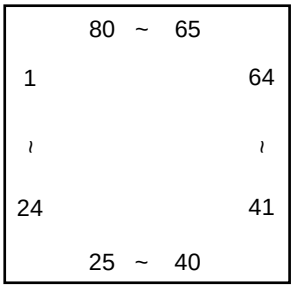
Replacement of laser pickup


Turn off the power switch and,disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to "Pickup Removal" on the previous page)
Plug the power cord in,and turn the power on. At this time,check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP1.
Finish.

Description of major ICs

■ UPD780058 (IC931) : Main micon

1. Pin layout



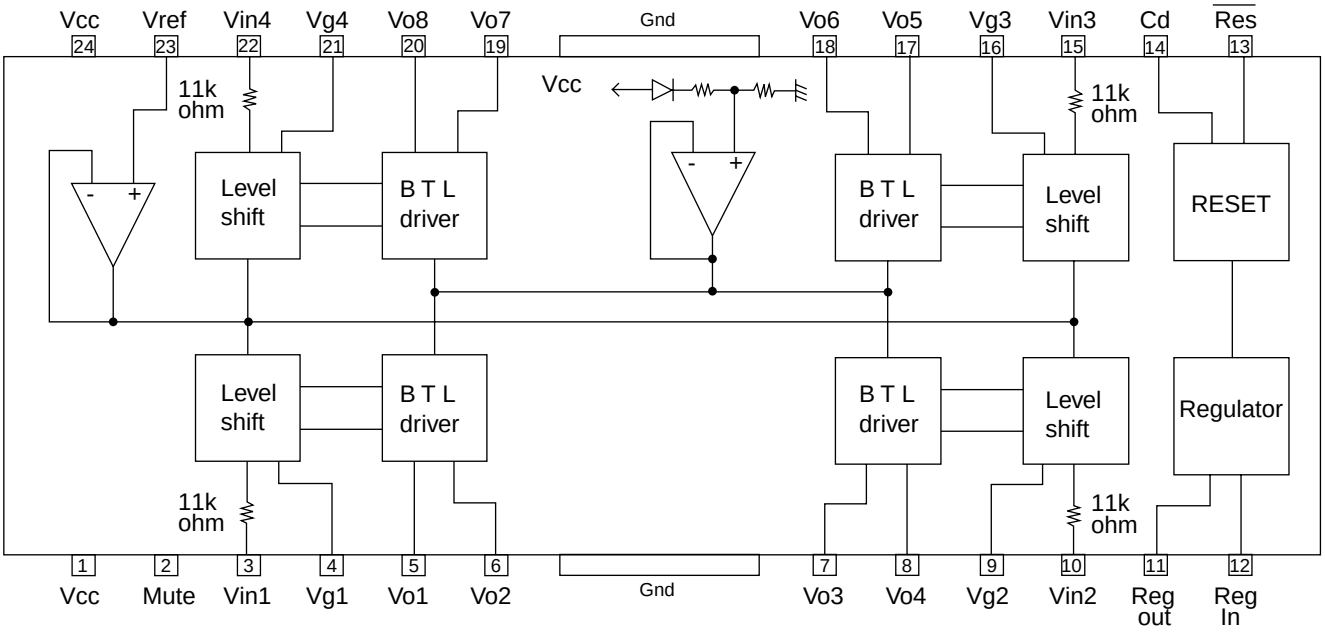
2. Pin function

Pin No.	Port	Name	I/O	Function	Function
1	P15/AN15	SAFETY0	I	Irregular voltage detection 0	Safety
2	P16/AN16	DOOR_RST	I	REST/CLOSE switch detect port	Door
3	P17/AN17	CDSAFETY	I	CD safety voltage detect port	Safety
4	AVss				
5	P130/ANO0	EQSW	O	CD speed control	CD
6	P131/ANO1	GCTRL	O	CD Gain Control	CD
7	AVREF1				
8	P70/SI2/RxD0	QRIN	I	Q-code data input port	CD
9	P71/SO2/TxD0				
10	P72/$\overline{SCK2}$/ASCK	SQCK	O	Q-code serial clock	CD
11	P20/SI1	STAT	I	CD status input port	CD
12	P21/SO1	MDATA	O	CD data input port	CD
13	P22/$\overline{SCK1}$	MCLK	O	CD data clock	CD
14	P23/STB/TxD1	_XRST	O	CD reset	CD
15	P24/BUSY/RxD1	MLD	O	CD command ready signal	CD
16	P25/SI0/SB0	MUTE	O	BTL mute control port	CD
17	P26/SO0/SB1	SDATA	O	Serial Date (Tuner PLL/Tape IC)	Tuner/Tape
18	P27/$\overline{SCK0}$	SCK	O	Serial Clock (Tuner PLL/Tape IC)	Tuner/Tape
19	P40/AD0				
20	P41/AD1	CLOSE	I	Door close switch input port	Door
21	P42/AD2	OPEN	I	Door poen switch input port	Door
22	P43/AD3	F_CD	O	CD Function ("H"=CD)	CD
23	P44/AD4				
24	P45/AD5	_AHB1	O	Subwooder Amp AHB control	Sound (P7only)
25	P46/AD6	VOLCE	O	Volumn Chip Enable	Sound
26	P47/AD7				
27	P50/A8	_F_AUX			AUX
28	P51/A9	_PBMUTE	O	Tape play mute ("L"=mute)	Tape
29	P52/A10	_SMUTE	O	System mute	Sound
30	P53/A11	SPKMUTE	O	Speaker mute	Sound
31	P54/A12	_AHB	O	Active Hyper Bass On/off ("L"=ON)	Sound
32	P55/A13	P_OUT	O	Power On/off ("H"=Power On)	AMP
33	Vss1				
34	P56/A14	PROTR	O	Protector	Safety
35	P57/A15	MODEL1	I	MODEL 0: P3/P5; 1: P7	
36	P60	MODEL2	I	MODEL2 0: P3; 1: P5	
37	P61				
38	P62				

Pin No.	Port	Name	I/O	Function	Function
39	P63				
40	P64/$\overline{RD}$	LEDRV	O	Lite LED indicate Reverse	LED
41	P65/$\overline{WR}$	LED_REC	O	Lite LED indicate REC	LED
42	P66/$\overline{WAIT}$	LEDFR	O	Lite LED indicate Forward	LED
43	P67/ASTB	STTA	O	Tape IC Strobe	Tape
44	P30/TO0	LCDAT	O	LCD data	LCD
45	P31/TO1	LMODE	O	LCD date mode control	LCD
46	P32/TO2	LCDCK	O	LCD clock	LCD
47	P33/TI1				
48	P34/TI2	REEL	I	Tape End Detection	Tape
49	P35/PCL	INH_	O	LCD Driver inhibit ("L" at end of tran)	LCD
50	P36/BUZ	LCDCE	O	LCD driver chip enable	LCD
51	P37	DIMCTL	O	LCD DIM Control	LED
52	P120/RTP0	VOLP	I	Volumn Plus	Sound
53	P121/RTP1	LEDCTL	O	Power Standby LED control	LED
54	P122/RTP2	BASM	I	Bass Minus	Sound (P7 only)
55	P123/RTP3	VOLM	I	Volumn Minus	Sound
56	P124/RTP4	BASP	I	Bass plus	Sound (P7 only)
57	P125/RTP5	PERIOD	O	Tuner PLL Strode	Tuner
58	P126/RTP6	F_TU	O	Tuner Function ("H"=TUNER)	Tuner
59	P127/RTP7	BUP	O	Back up power detect ("H"=BACKUP)	Backup
60	$\overline{RESET}$				
61	P00/INTP0/TI00	_REM	I	Remote control input	Remote con
62	P01/INTP1/TI01	RDSCK	I	RDS clock	Tuner
63	P02/INTP2	_MPX	I	FM Stereo Detection ("L"=STEREO)	Tuner
64	P03/INTP3				
65	P04/INTP4	BCTL	O	Switched 5V controller ("H"=5Vüf off)	AMP
66	P05/INTP5	BLKCK	I	Block clock input port	CD
67	Vss0				
68	VDD1				
69	X2				
70	X1				
71	IC (VPP)				
72	XT2				
73	XT1/P07				
74	VDD0				
75	AVREF0				
76	P10/ANI0	SAFETY1	I	Irregular voltage detection 1	Safety
77	P11/ANI1	TAPE0	I	Tape Switch 0	Tape
78	P12/ANI2	TAPE1	I	Tape Switch 1	Tape
79	P13/ANI3	KEY1	I	Unit Key input 1	Key
80	P14/ANI4	KEY2	I	Unit Key input 0	Key

■ LA6541 (IC801) : Foucus & Spindle & Feed & Tracking BTL driver

1. Pin Layout & block diagram

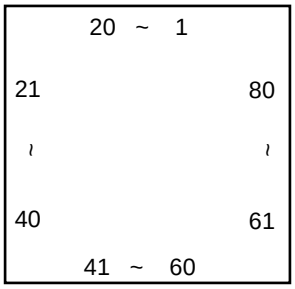


2. Pin function

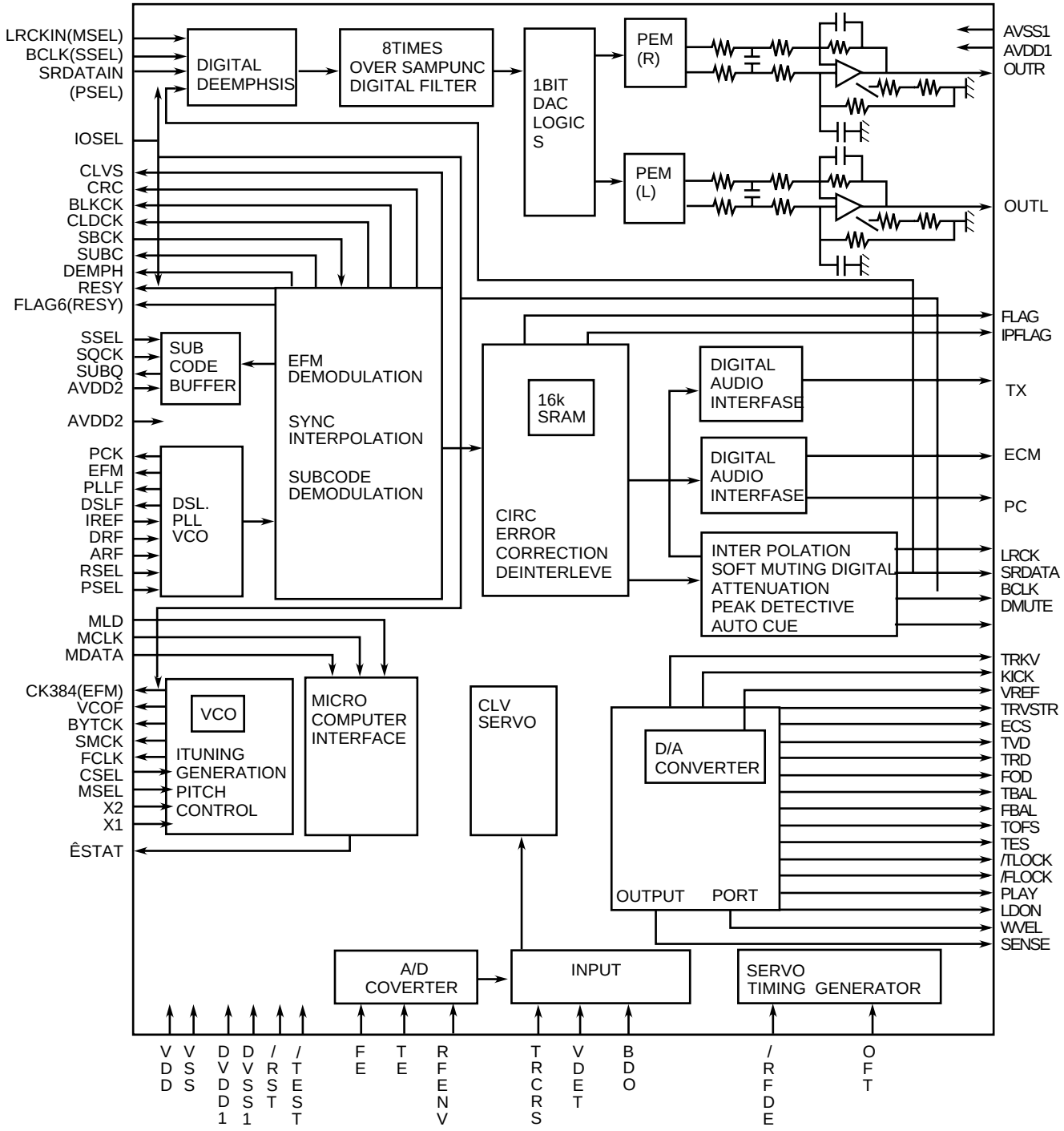
Pin No.	Symbol	Function
1	Vcc	Power supply (Shorted to pin 24)
2	Mute	All BTL amplifier outputs ON/OFF
3	Vin1	BTL AMP 1 input pin
4	Vg1	BTL AMP 1 input pin (For gain adjustment)
5	Vo1	BTL AMP 1 input pin (Non inverting side)
6	Vo2	BTL AMP 1 input pin (Inverting side)
7	Vo3	BTL AMP 2 input pin (Inverting side)
8	Vo4	BTL AMP 2 input pin (Non inverting side)
9	Vg2	BTL AMP 2 input pin (For gain adjustment)
10	Vin2	BTL AMP 2 input pin
11	Reg Out	External transistor collector (PNP) connection. 5V power supply output
12	Reg In	External transistor (PNP) base connection
13	Res	Reset output
14	Cd	Reset output delay time setting (Capacitor connected externally)
15	Vin3	BTL AMP 3 input pin
16	Vg3	BTL AMP 3 input pin (For gain adjustment)
17	Vo5	BTL AMP 3 output pin (Non inverting side)
18	Vo6	BTL AMP 3 output pin (Inverting side)
19	Vo7	BTL AMP 4 output pin (Inverting side)
20	Vo8	BTL AMP 4 output pin (Non inverting side)
21	Vg4	BTL AMP 4 output pin (For gain adjustment)
22	Vin4	BTL AMP 4 output pin
23	Vref	Level shift circuit's reference voltage application
24	Vcc	Power supply (Shorted to pin 1)

■ MN662748RPM (IC651) : Digital servo & digital signal processer

1. Pin layout



2.Block diagram

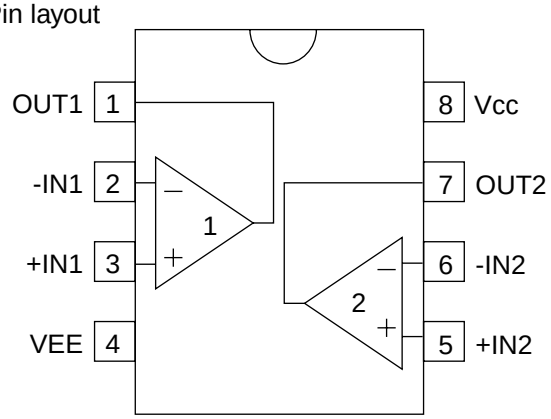


3. Pin function

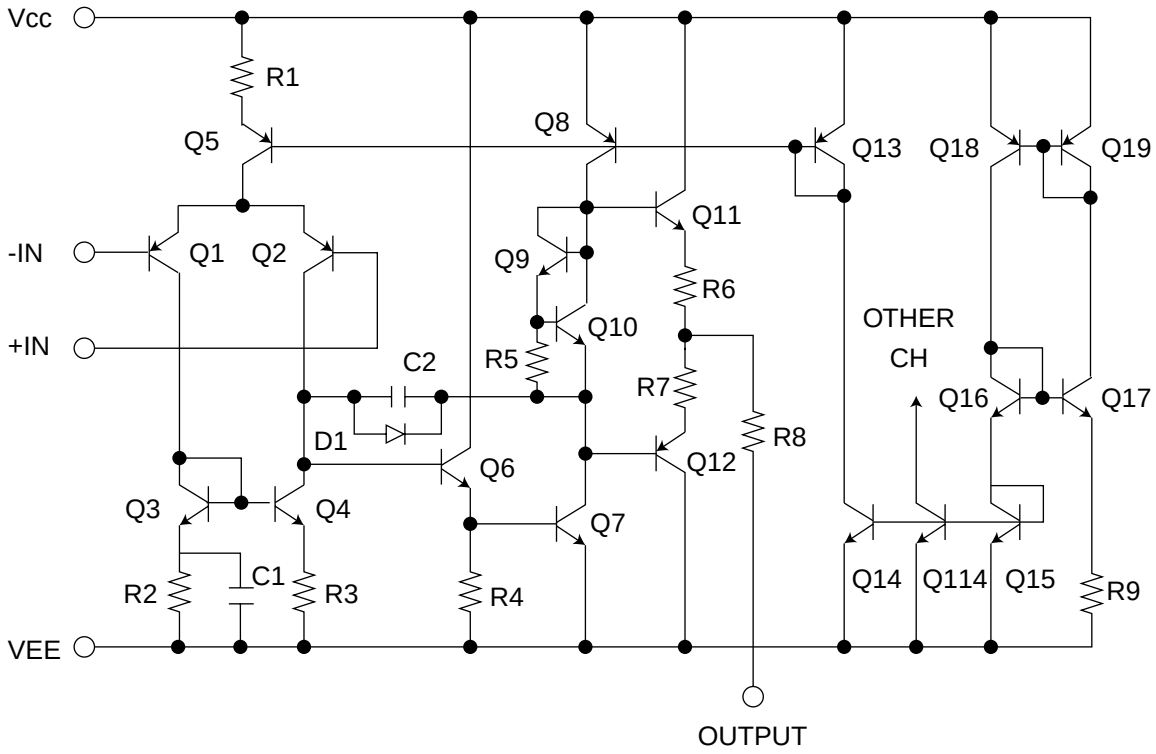
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output (H:shunt)
2	LRCK	O	Not used	42	PLAY	–	Not used
3	SRDATA	O	Not used	43	WVEL	–	Not used
4	DVDD1	–	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	–	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	CPU command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	CPU command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	CPU command load signal input	49	VCOF	–	Not used
10	SENSE	O	Sense signal output	50	AVDD2	–	Power supply (Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	–	Connected to GND (Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	–	Not used
13	BLKCK	O	sub-code/block/clock signal output	53	PCK	–	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	–	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	–	Not used
16	DMUTE	–	Connected to GND	56	SBCK	–	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	–	Connected to GND (for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	–	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	–	Not used	60	VDD	–	Power supply (for X'tal oscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	–	Not used
22	TVD	O	Traverse drive output	62	CLDCK	–	Not used
23	PC	–	Not used	63	FLAG	–	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	–	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	–	Not used
26	KICK	O	Kick pulse output	66	CLVS	–	Not used
27	TRD	O	Tracking drive output	67	CRC	–	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	–	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	–	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	–	pull up
32	FE	I	Focus error signal input (Analog input)	72	AVDD1	–	Power supply (Digital)
33	TE	I	Tracking error signal input (Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input (Analog input)	74	AVSS1	–	Connected to GND
35	VDET	I	Vibration detect signal input (H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input (H:off track)	76	RSEL	–	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	–	Connected to GND
38	RFDET	I	RF detect signal input (L:detect)	78	PSEL	–	Connected to GND
39	BDO	I	BDO input pin (L:detect)	79	MSEL	–	Connected to GND
40	LDON	O	Laser ON signal output (H:on)	80	SSEL	–	Pull up

■BA15218F-XE (IC904) : Dual operation amplifier

1. Pin layout

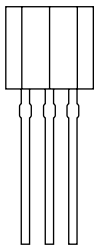


2. Block diagram

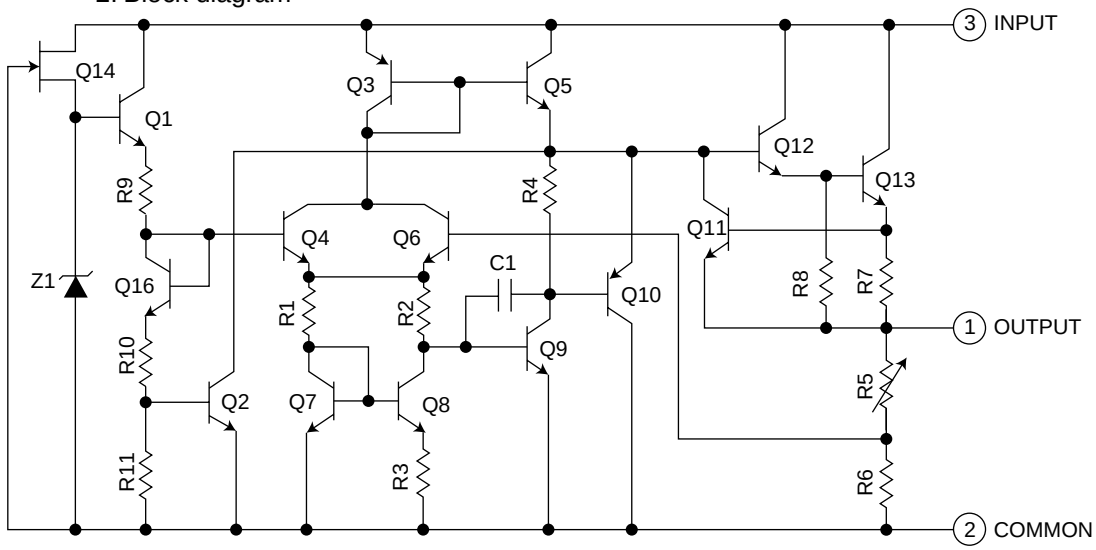


■ KIA78S06P-T (IC933) : Regulator

1. Pin layout

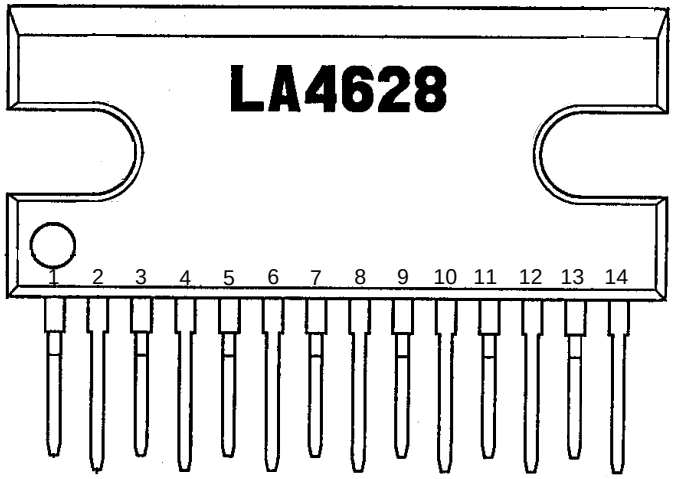


2. Block diagram

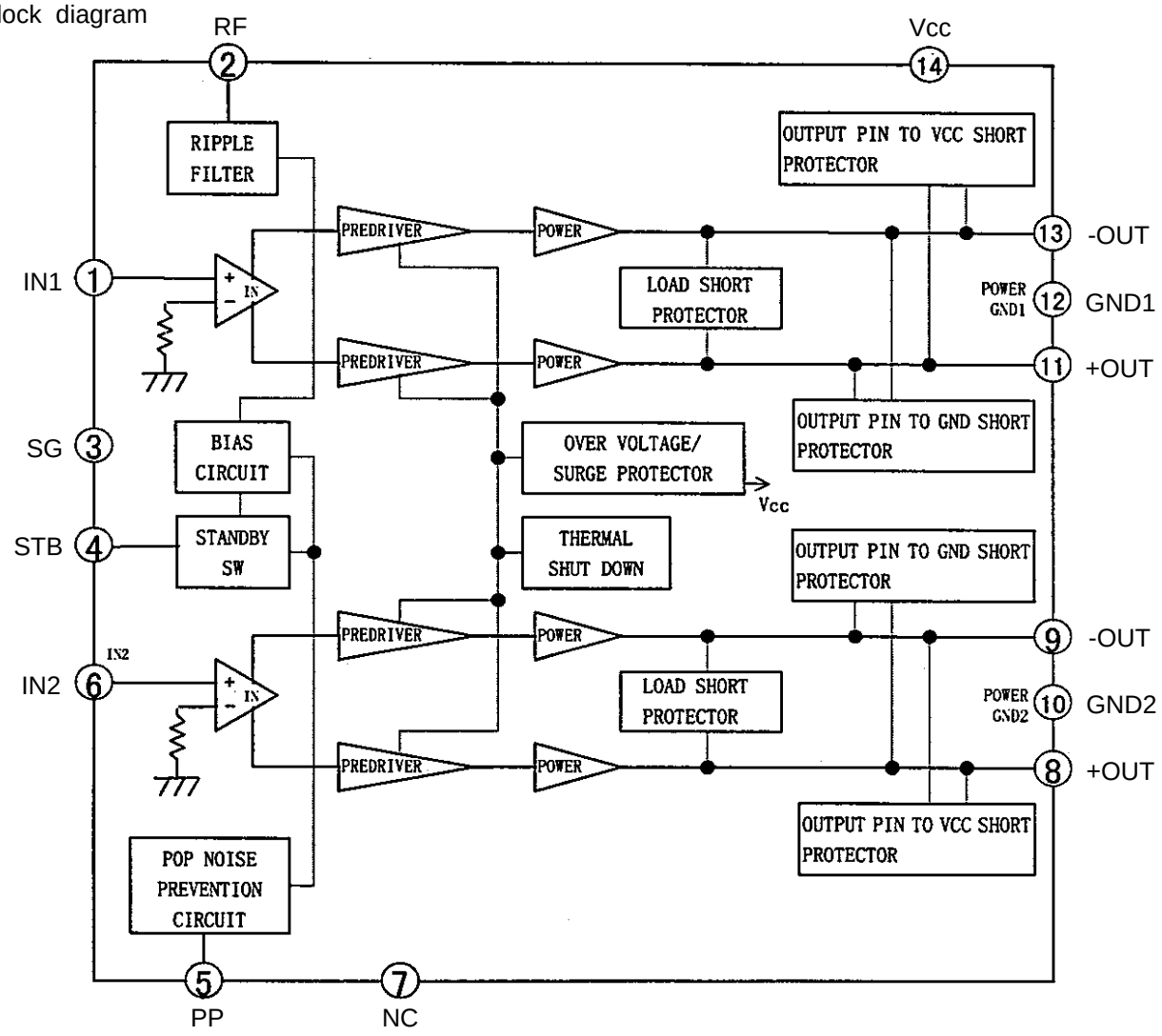


■ LA4628 (IC905) : Power amp

1. Pin layout

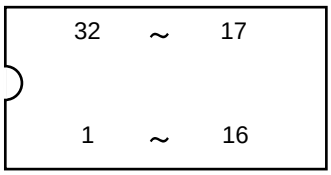


2.Block diagram

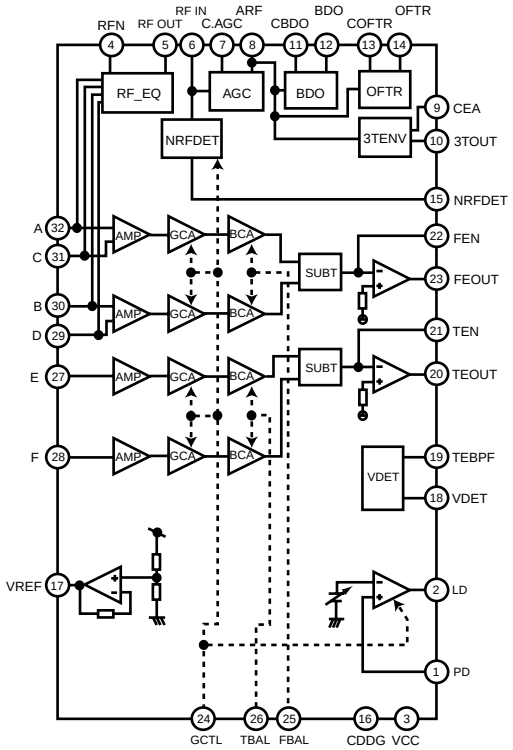


■AN22000A(IC601):RF & SERVO AMP

1. Pin layout



2. Block

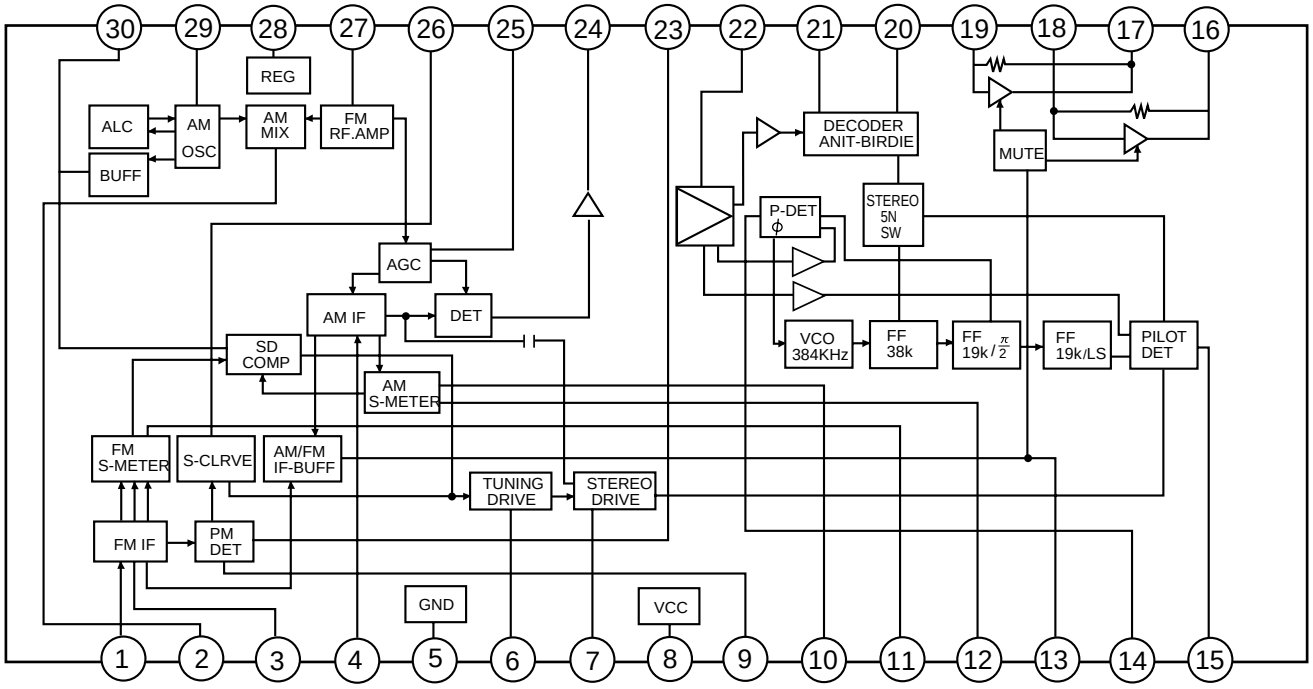


3. Function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	PD	APC Amp. Input terminal	16	CDDG	Earth terminal
2	LD	APC Amp.Output terminal	17	VREF	VREF output terminal
3	VCC	Power supply terminal	18	VDET	VDET output terminal
4	RFN	RF addition Amp.Reversing input terminal	19	TEBPF	VDET input terminal
5	RF OUT	RF addition Amp.Output terminal	20	TEOUT	TE Amp. output terminal
6	RF IN	AGC input terminal	21	TEN	TE Amp. reversing input terminal
7	C.AGC	Terminal of connection of capacity of AGC loop filter.	22	FEN	FE Amp. reversing input terminal
			23	FEOUT	FE Amp. output terminal
8	ARF	AGC output terminal	24	GCTL	Terminal GCTL & APC
9	CEA	Capacity connection terminal for HPF-Amp.	25	FBAL	FBAL control terminal
10	3TOUT	3TENV output terminal	26	TBAL	TBAL control terminal
11	CBDO	Capacity connection terminal for RF shade side envelope detection	27	E	Tracking signal input terminal 1
			28	F	Tracking signal input terminal 2
12	BDO	BDO output terminal	29	D	Focus signal input terminal 4
13	COFTR	Capacity connection terminal for RF discernment side envelope detection	30	B	Focus signal input terminal 2
			31	C	Focus signal input terminal 3
14	OFTR	OFTR output terminal	32	A	Focus signal input terminal 1
15	NRFDET	NRFDET output terminal			

■ LA1838 (IC1): FM AM IF AMP&detector, FM MPX decoder

1. Block Diagram

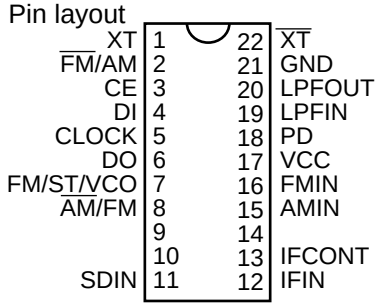


2. Pin Function

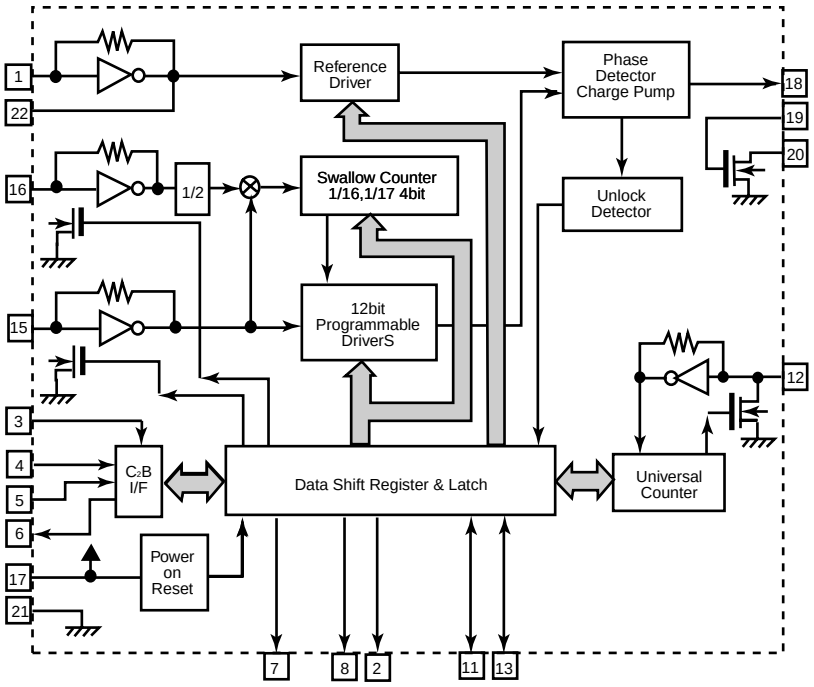
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the right channel post AMP.
5	GND	–	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tuning, this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	IF IN	I	Mpx input terminal
8	VCC	–	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	–	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	–	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	–	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 desides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	–	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

■ LC72136N (IC2) : PLL frequency synthesizer

1. Pin layout



2. Block diagram

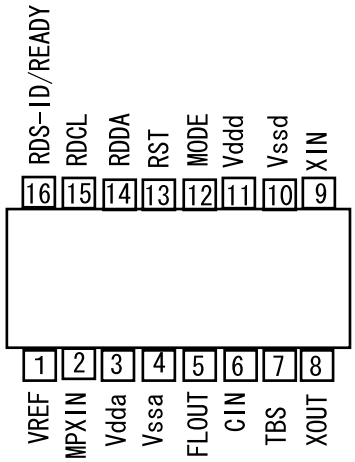


3. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)	12	IFIN	I	IF counter signal input
2	$\overline{FM}$/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14		-	Not use
4	DI	I	Input for receive the serial data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suplly(VDD=4.5-5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	$\overline{AM}$/FM	O	Open state after the power on reset	19	LPFIN	I	Input for active lowpassfilter of PLL
9	LW	I/O	Input/output port	20	LPFOUT	O	Output for active lowpassfilter of PLL
10	MW	I/O	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	$\overline{XT}$	I	X'tal oscillator(75KHz)

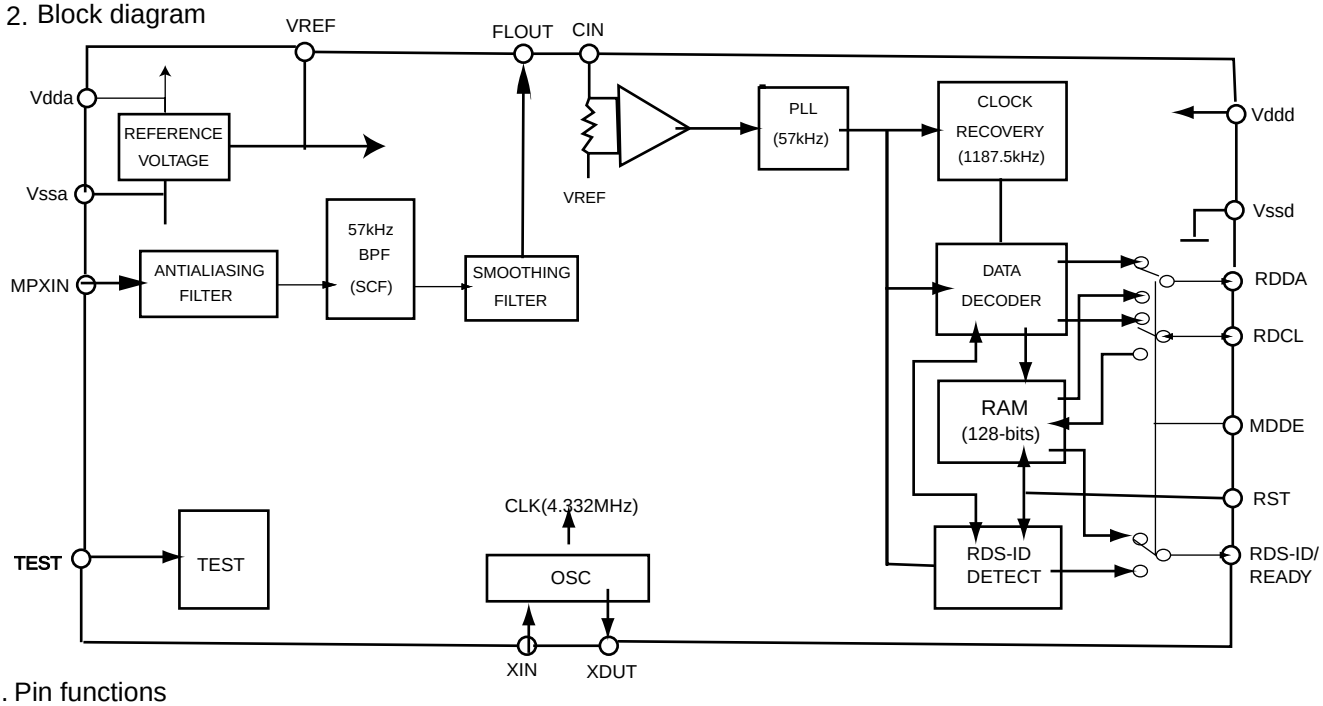
■ LC72723(IC3):RDS

1. Pin Assignment



Top View

2. Block diagram

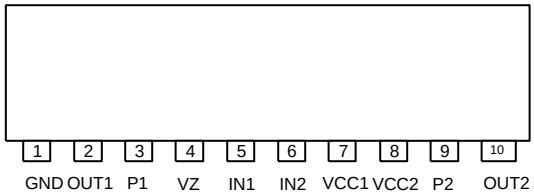


3. Pin functions

Pin No.	Symbol	I/O	Function
1	VREF	O	Reference voltage output (Vdda/2)
2	MPXIN	I	Baseband (multiplexed) signal input
3	Vdda	—	Analog power supply (+5V)
4	Vssa	—	Analog ground
5	FLOUT	O	Subcarrier input (filter output)
6	CIN	I	Subcarrier input (comparator input)
7	TEST	I	Test input
8	XOUT	O	Crystal oscillator output (4.332MHz)
9	XIN	I	Crystal oscillator input (exeternal reference input)
10	Vssd	—	Digtal ground
11	Vddd	—	Digtal power supply
12	MODE	I	Read mode setting (0:master,1:slave)
13	RST	I	RDS-ID/RAM reset (positive polarity)
14	RDDA	O	RDS data output
15	RDCL	I/O	RDS clock output (master mode)/RDS clock input (slave mode)
16	RDS-ID READY	O	RDS-ID/READY output (negative polarity)

■ LB1641 (IC802) : DC Motor driver

1. Pin layout

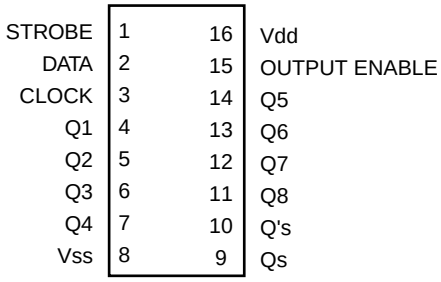


2. Pin function

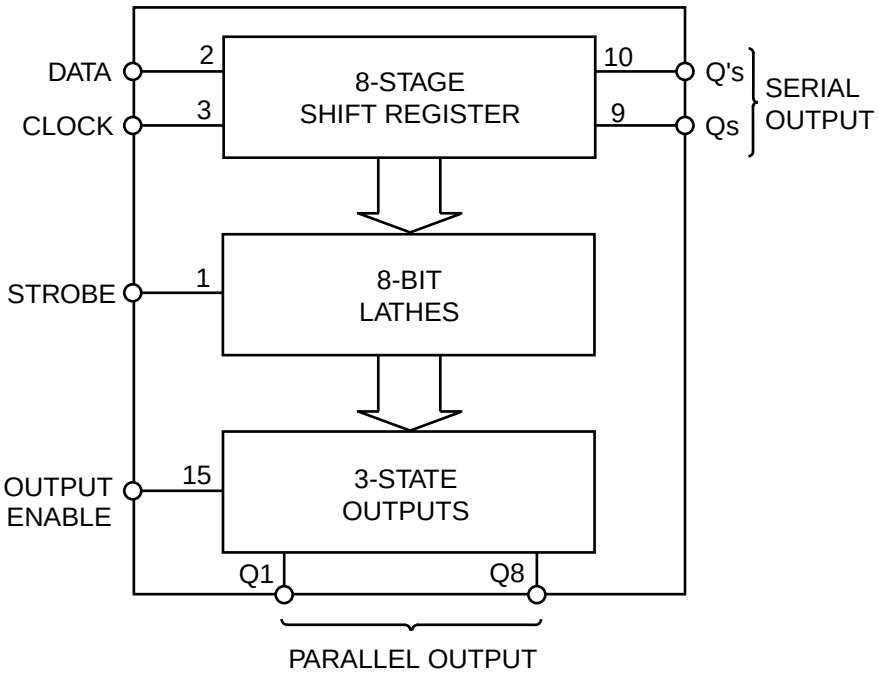
Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ BU4094BC(IC33):Serial to parallel port extension

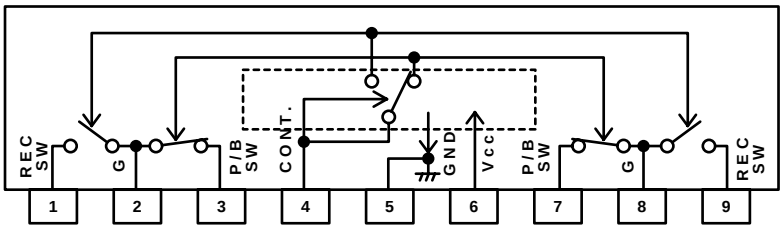
1.Pin layout



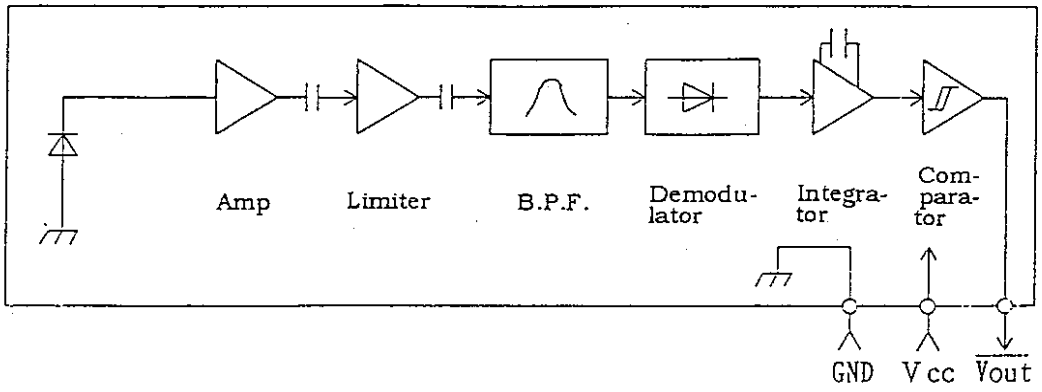
2.Block diagram



■BA3126N(IC31) : R/P Switch

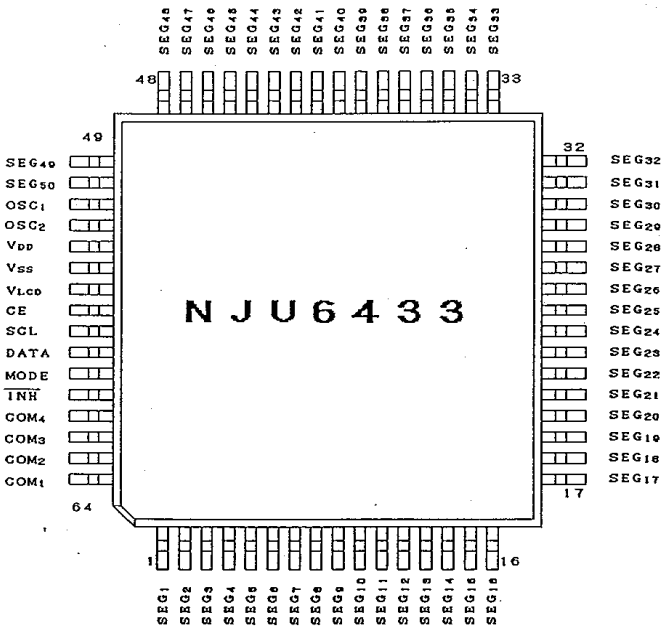


■GP1U26X (IC933)

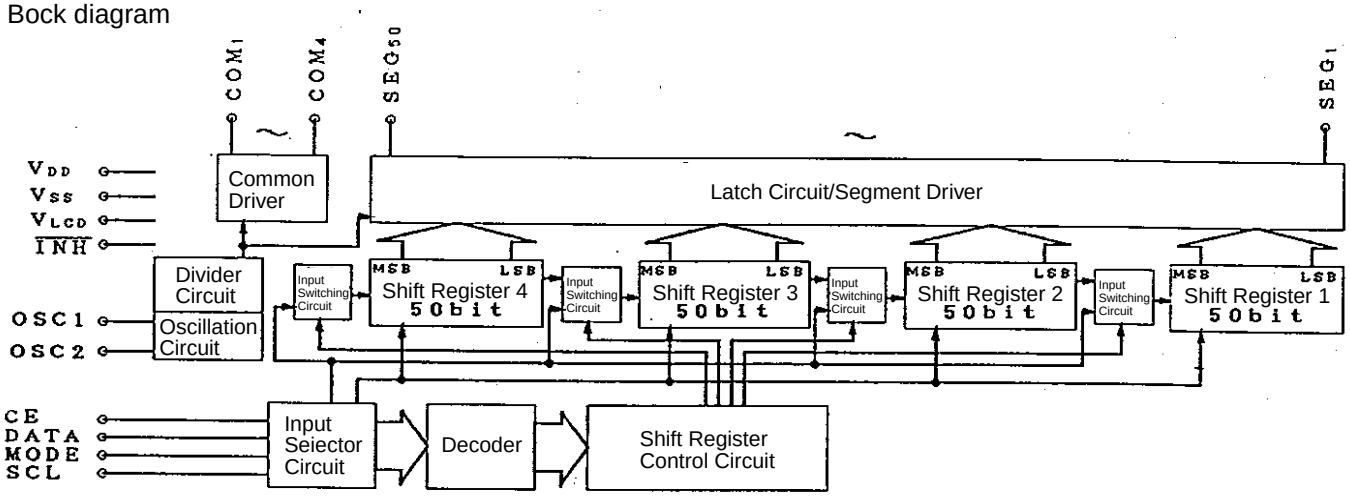


■ NJU6433FG1 (IC934)

1. Pin layout


NJU6433
SEG49 SEG50 OSC1 OSC2 VDD VSS VLCD CE SCL DATA MODE INH COM4 COM3 COM2 COM1
SEG32 SEG31 SEG30 SEG29 SEG28 SEG27 SEG26 SEG25 SEG24 SEG23 SEG22 SEG21 SEG20 SEG19 SEG18 SEG17
SEG1 SEG2 SEG3 SEG4 SEG5 SEG6 SEG7 SEG8 SEG9 SEG10 SEG11 SEG12 SEG13 SEG14 SEG15 SEG16
1
16
17
32
33
48
49
64

2. Bock diagram

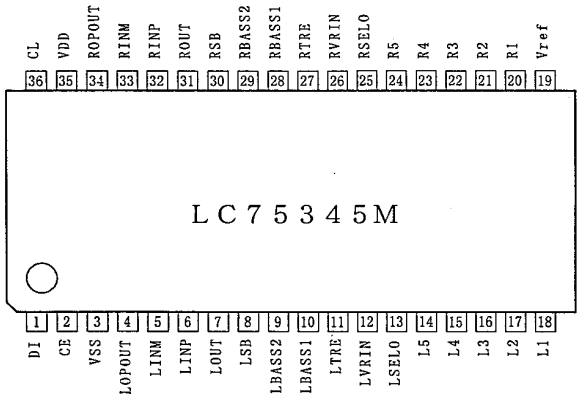


3. Pin function

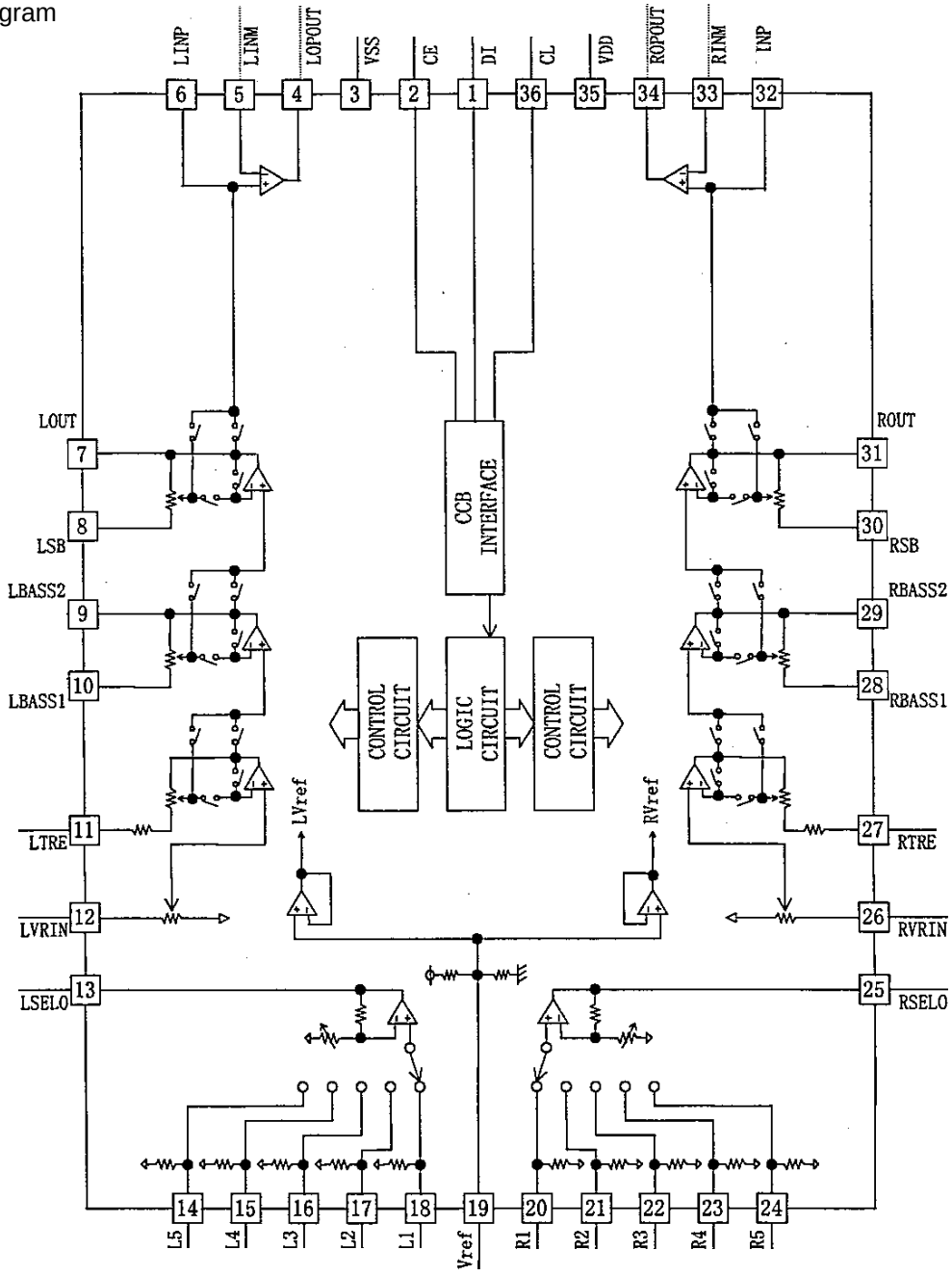
Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	SEG_1	17	SEG_{17}	33	SEG_{33}	49	SEG_{49}
2	SEG_2	18	SEG_{18}	34	SEG_{34}	50	SEG_{50}
3	SEG_3	19	SEG_{19}	35	SEG_{35}	51	OSC_1
4	SEG_4	20	SEG_{20}	36	SEG_{36}	52	OSC_2
5	SEG_5	21	SEG_{21}	37	SEG_{37}	53	V_{DD}
6	SEG_6	22	SEG_{22}	38	SEG_{38}	54	V_{SS}
7	SEG_7	23	SEG_{23}	39	SEG_{39}	55	V_{LCD}
8	SEG_8	24	SEG_{24}	40	SEG_{40}	56	CE
9	SEG_9	25	SEG_{25}	41	SEG_{41}	57	SCL
10	SEG_{10}	26	SEG_{26}	42	SEG_{42}	58	DATA
11	SEG_{11}	27	SEG_{27}	43	SEG_{43}	59	MODE
12	SEG_{12}	28	SEG_{28}	44	SEG_{44}	60	$\overline{INH}$
13	SEG_{13}	29	SEG_{29}	45	SEG_{45}	61	COM_4
14	SEG_{14}	30	SEG_{30}	46	SEG_{46}	62	COM_3
15	SEG_{15}	31	SEG_{31}	47	SEG_{47}	63	COM_2
16	SEG_{16}	32	SEG_{32}	48	SEG_{48}	64	COM_1

■LC75345M (IC901)

1. Pin layout



2. Block Diagram



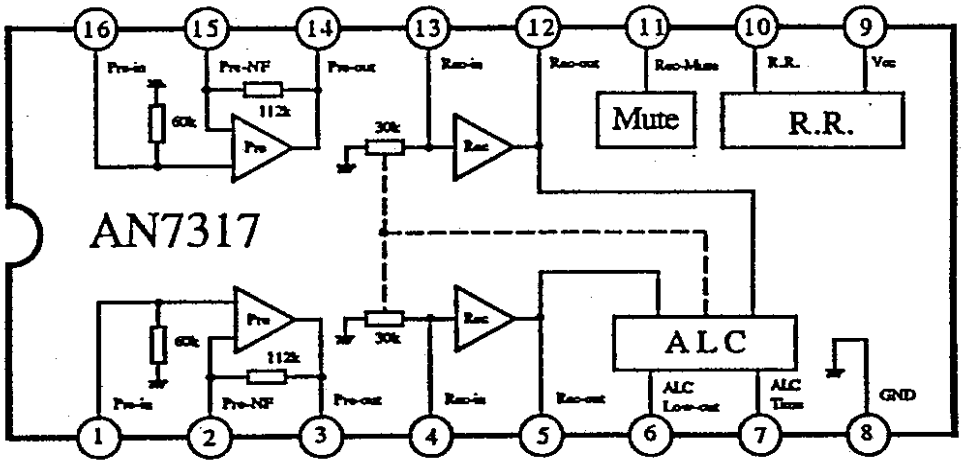
3. Descriptions

Pin name	Pin No.	Descriptions
L1 L2 L3 L4 L5 R1 R2 R3 R4 R5	18 17 16 15 14 20 21 22 23 24	Input signal pin
LSEL0 RSEL0	13 25	Input selector output pin.
LBASS1 LBASS2 RBASS1 RBASS2 LSB RSB	10 9 28 29 8 30	Capacitor and resistor connection pins comprising filters for bass and super-bass band.
LOUT ROUT	7 31	ATT + equalizer output pin/capacitor connection pin comprising filter for super-bass
LVRIN RVRIN	12 26	Volume input pin
LTRE RTRE	11 27	Capacitor connection pin comprising treble band filter.

Pin name	Pin No.	Descriptions
Vref	19	0.5 × VDD voltage generation block for analog ground. Capacitor of several 10μF to be connected between Vref and AWSS (VSS) as a counter—measure against power ripple.
VSS	3	Ground pin
VDD	35	Supply pin
CE	2	Chip enable pin. Data written into an internal latch in a timing of [H] → [L]. Each analog switch is activated. Data transfer enabled at [H] level.
DI CL	1 36	Serial data and clock input pin for control.
LINP RINP	6 32	Non-inverted input pin of general-purpose operation amplifier. Keep this pin open when not used.
LINM RINM	5 33	Non-inverted input pin of general-purpose operation amplifier. Connect to L(R)OPOUT pin when not used. (Connect between pins 5 and 4) (Connect between pins 33 and 34)
LOPOUT ROPOUT	4 34	Output pin of general-purpose operation amplifier. Connect to L(R)INN pin when not used. (Connect between pins 5 and 4) (Connect between pins 33 and 34)

■ AN7317 (IC32) : PB/REC amp

Block Diagram

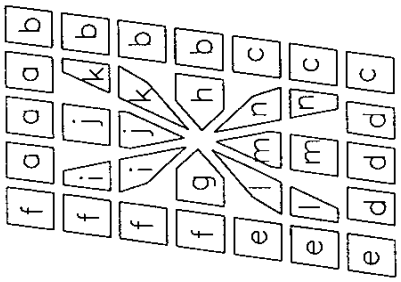


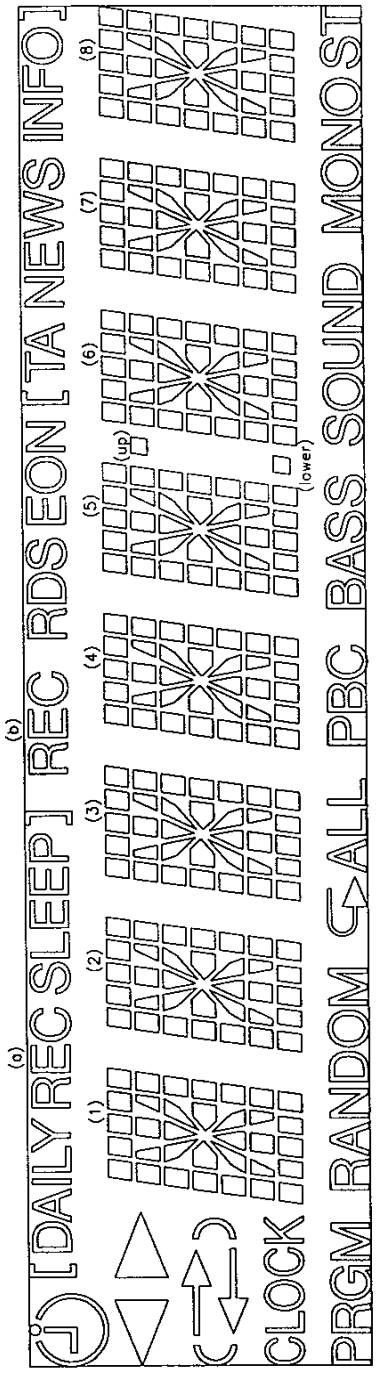
Pin Descriptions

Pin No.	Pin Descriptions
1	Channel 1 Playback Amplifier Input
2	Channel 1 Playback Amplifier Negative Feedback
3	Channel 1 Playback Amplifier Output
4	Channel 1 Record Amplifier Input
5	Channel 1 Record Amplifier Output
6	ALC Low-Cut
7	ALC Time
8	Ground
9	Vcc
10.	Ripple Filter
11	Record - Amplifier Mute
12	Channel 2 Record Amplifier Output
13	Channel 2 Record Amplifier Input
14	Channel 2 Playback Amplifier Output
15	Channel 2 Playback Amplifier Negative Feedback
16	Channel 2 Playback Amplifier Input

Internal connection of display

■ QLD0160-001 (D1934)





PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	COM0				[ ] (lower) right			CLOCK	1i	1m	1d	RANDOM	2l	2m	2d		3l	3m	3d	ALL	4l	4m	4d	PBC	5l	5m	5d	BASS	6l	6m	6d	SOUND	7i	7m	7d	MONO	8l	8m	8d	ST
		COM1		PRGM					1e	1g	1n	1c	2e	2g	2n	2c	3e	3g	3n	3c	4e	4g	4c	5e	5g	5n	5c	6e	6g	6n	6c	7e	7g	7n	7c	8e	8g	8n	8c
			COM2			(up)			1f	1i	1j	1h	2f	2i	2j	2h	[ ] left	3i	3j	3h	4f	4i	4j	4h	5f	5i	5j	5h	6f	6i	6j	6h	7f	7i	7j	7h	8f	8i	8j	8h
				COM3	INFO			DAILY	REC (a)	1a	1k	1b	SLEEP	2a	2k	2b		3a	3k	3b	REC (b)	4a	4k	4b	RDS	5a	5k	5b	EON	6a	6k	6b	TA	7a	7k	7b	NEWS	8a	8k	8b

<<MEMO>>

JVC

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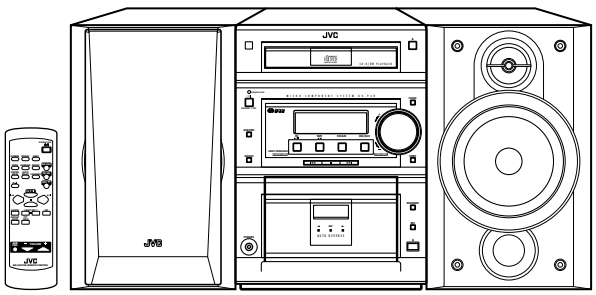
No.20945

Printed in Japan
200104(O)

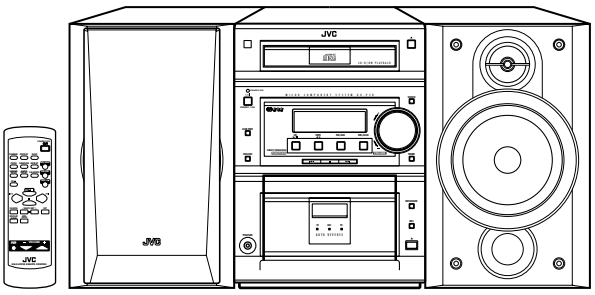
JVC

MICRO COMPONENT SYSTEM

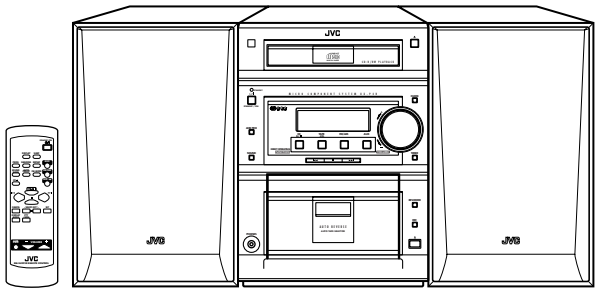
UX-P6R — Consists of CA-UXP6R and SP-UXP6.
UX-P5R — Consists of CA-UXP5R and SP-UXP5.
UX-P4R — Consists of CA-UXP4R and SP-UXP4.
UX-P3R — Consists of CA-UXP3R and SP-UXP3.



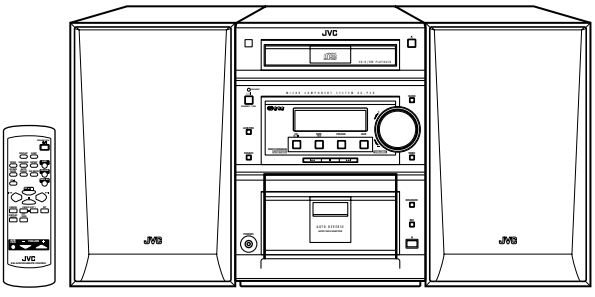
SP-UXP6 CA-UXP6R SP-UXP6



SP-UXP5 CA-UXP5R SP-UXP5



SP-UXP4 CA-UXP4R SP-UXP4



SP-UXP3 CA-UXP3R SP-UXP3

COMPACT disc DIGITAL AUDIO

RDS EON

INSTRUCTIONS

For Customer Use:
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

GVT0053-008A
[B]

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT:

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

For UX-P6R and UX-P5R:
Caution –– ⏻/I STANDBY/ON button!
Disconnect the mains plug to shut the power off completely (the STANDBY/ON lamp goes off). The ⏻/I STANDBY/ON button in any position does not disconnect the mains line.
- When the unit is on standby, the STANDBY/ON lamp lights red.
- When the unit is turned on, the STANDBY/ON lamp lights green.

The power can be remote controlled.

For UX-P4R and UX-P3R:
Caution –– ⏻/I STANDBY/ON button!
Disconnect the mains plug to shut the power off completely. The ⏻/I STANDBY/ON button in any position does not disconnect the mains line.
The power can be remote controlled.

IMPORTANT FOR LASER PRODUCTS

REPRODUCTION OF LABELS

① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE

CLASS 1
LASER PRODUCT

② WARNING LABEL, PLACED INSIDE THE UNIT

CAUTION: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	**ADVARSEL:** Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling (d)	**VARNING:** Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)	**VARO:** Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

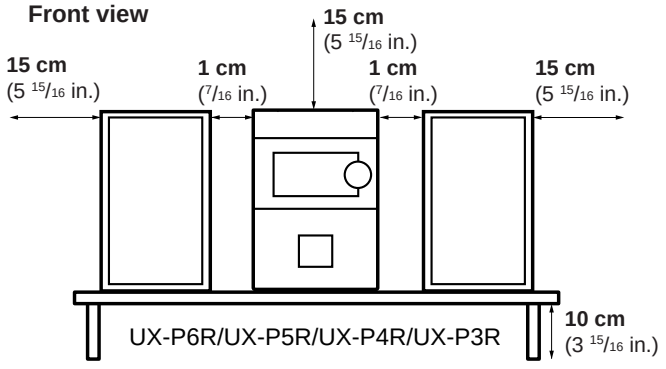
1. CLASS 1 LASER PRODUCT
2. **CAUTION**: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION**: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

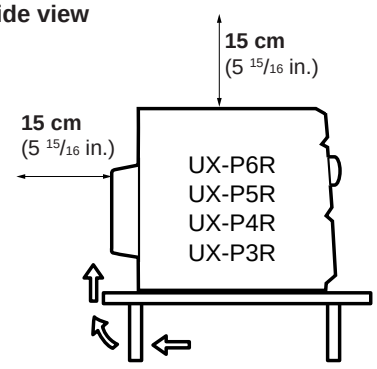
CAUTION
- Do not block the ventilation openings or holes.
  (If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
- Do not place any naked flame sources, such as lighted candles, on the apparatus.
- When discarding batteries, environmental problems must be considered and local rules or laws governing the disposal of these batteries must be followed strictly.
- Do not use this apparatus in a bathroom or places with water. Also do not place any containers filled with water or liquids (such as cosmetics or medicines, flower vases, potted plants, cups, etc.) on top of this apparatus.

Caution: Proper Ventilation
To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:
1 Front:
No obstructions and open spacing.
2 Sides/ Top/ Back:
No obstructions should be placed in the areas shown by the dimensions below.
3 Bottom:
Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm (3 15/16 in) or more.

Front view



Side view



SAFETY INSTRUCTIONS
“SOME DOS AND DON’TS ON THE SAFE USE OF EQUIPMENT”

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

★★

Do read the operating instructions before you attempt to use the equipment.

Do ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer’s instructions. Switch off and withdraw the mains plug when making or changing connections.

Do consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

Do be careful with glass panels or doors on equipment.

★★

DON’T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

DON’T remove any fixed cover as this may expose dangerous voltages.

DON’T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode.
Switch off using the switch on the equipment and make sure that your family know how to do this.

Special arrangements may need to be made for infirm or handicapped people.

DON’T use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.

DON’T listen to headphones at high volume as such use can permanently damage your hearing.

DON’T obstruct the ventilation of the equipment, for example with curtains or soft furnishings.

Overheating will cause damage and shorten the life of the equipment.

DON’T use makeshift stands and NEVER fix legs with wood screws — to ensure complete safety always fit the manufacturer’s approved stand or legs with the fixings provided according to the instructions.

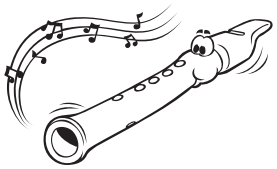
DON’T allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL

— NEVER let anyone, especially children, push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock.

— NEVER guess or take chances with electrical equipment of any kind — it is better to be safe than sorry!

Introduction



We would like to thank you for purchasing one of our JVC products. Before operating this unit, read this manual carefully and thoroughly to obtain the best possible performance from your unit, and retain this manual for future reference.

About This Manual

This manual is organized as follows:

- **The manual mainly explains operations using the buttons on the remote control.**
  You can use the buttons both on the remote control and on the unit for the same operations if they have the same or similar names (or marks), unless mentioned otherwise.
- Basic and common information that is the same for many functions is grouped in one place, and is not repeated in each procedure. For instance, we do not repeat the information about turning on/off the unit, setting the volume, changing the sound effects, and others, which are explained in the section “Common Operations” on pages 9 and 10.
- The following marks are used in this manual:

Gives you warnings and cautions to prevent from damage or risk of fire/electric shock. Also gives you information which is not good for obtaining the best possible performance from the unit.

Gives you information and hints you had better know.

Precautions

Installation

- Install in a place which is level, dry and neither too hot nor too cold — between 5˚C (41˚F) and 35˚C (95˚F).
- Install the unit in a location with adequate ventilation to prevent internal heat built-up in the unit.
- Leave sufficient distance between the unit and the TV.
- Keep the speakers away from the TV to avoid interference with TV.

DO NOT install the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or vibration.

Power sources

- When unplugging from the wall outlet, always pull the plug, not the AC power cord.

DO NOT handle the AC power cord with wet hands.

Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting heating in the room
- In a damp room
- If the unit is brought directly from a cold to a warm place

Should this occur, the unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

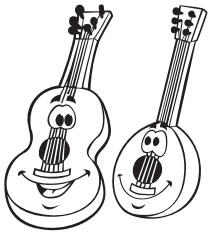
Others

- Should any metallic object or liquid fall into the unit, unplug the unit and consult your dealer before operating any further.
- If you are not going to operate the unit for an extended period of time, unplug the AC power cord from the wall outlet.

DO NOT disassemble the unit since there are no user serviceable parts inside.

If anything goes wrong, unplug the AC power cord and consult your dealer.

Contents



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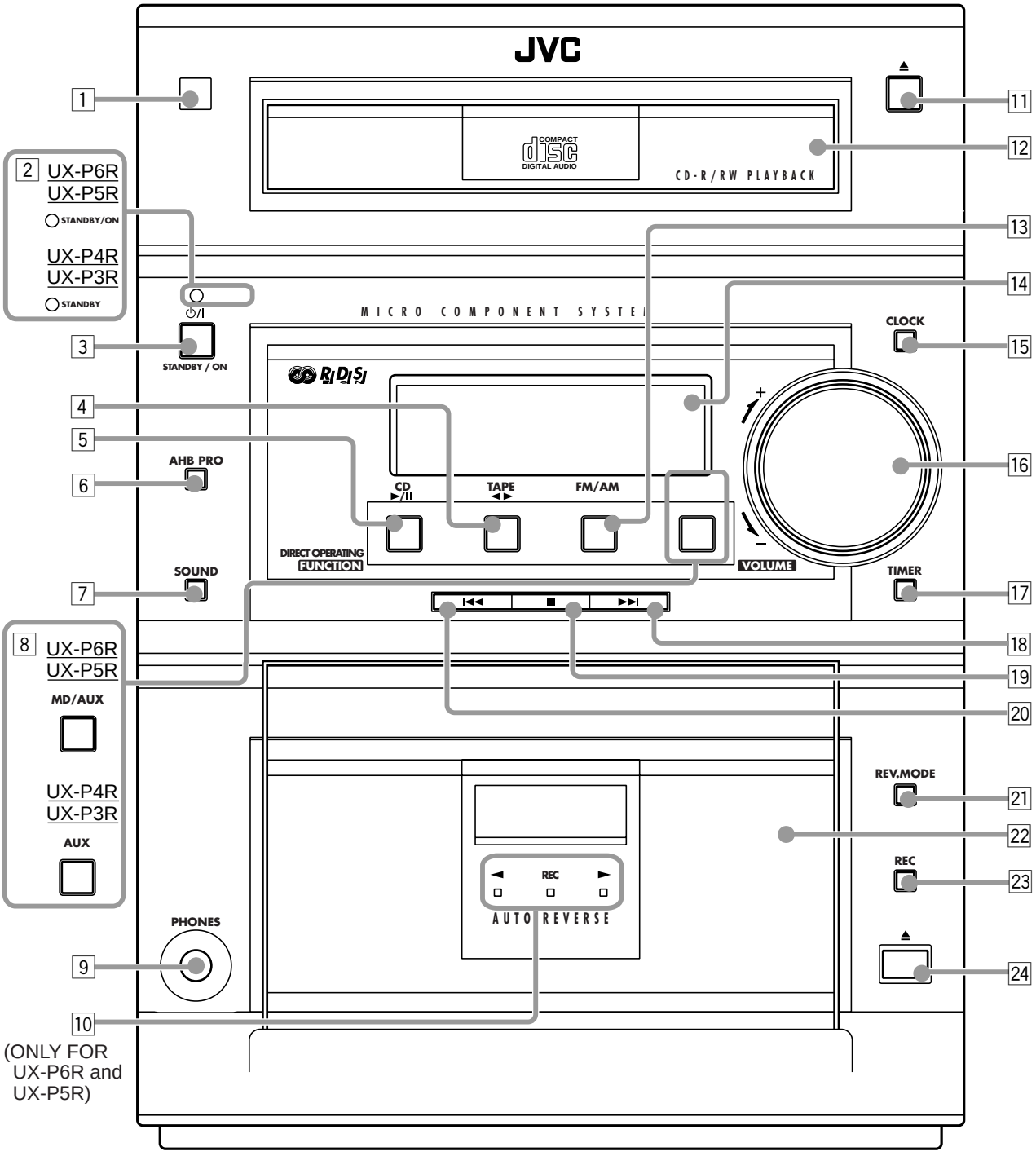
Location of the Buttons and Controls

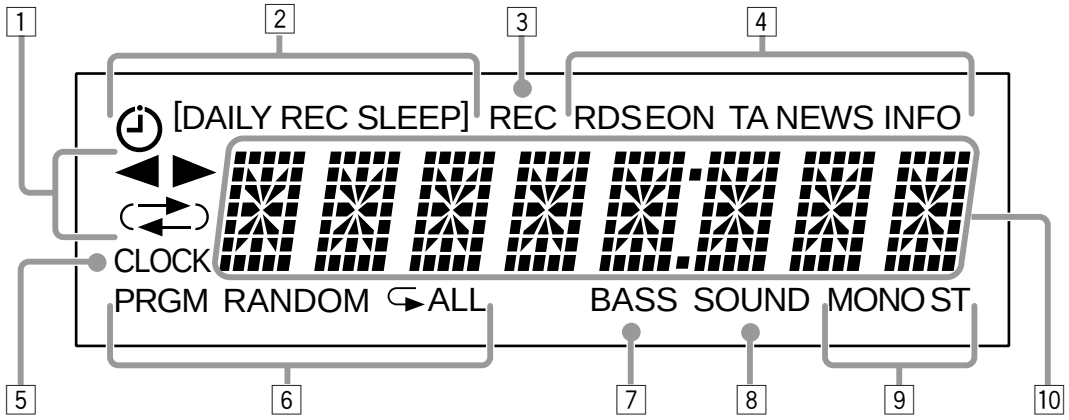
Become familiar with the buttons and controls on your unit.

Front Panel

Front Panel



Display Window



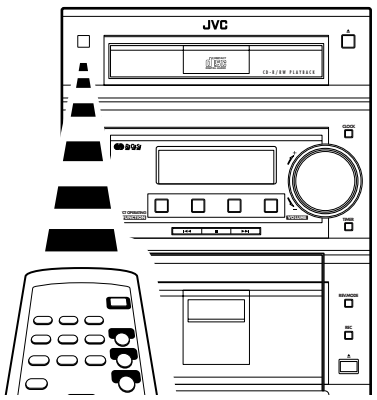
See pages in the parentheses for details.

Front Panel

1 Remote sensor
2 For UX-P6R and UX-P5R: STANDBY/ON lamp (9)
For UX-P4R and UX-P3R: STANDBY lamp (9)
3 ⏻/I (STANDBY/ON) button (9, 16, 21)
4 TAPE ◄ ► button (9, 17, 18)
Pressing this button also turns on the unit.
5 CD ►/II (play/pause) button (9, 14, 19)
Pressing this button also turns on the unit.
6 AHB (Active Hyper Bass) PRO button (10)
7 SOUND button (10)
8 For UX-P6R and UX-P5R: MD/AUX button (9)
For UX-P4R and UX-P3R: AUX button (9)
Pressing this button also turns on the unit.
9 PHONES jack (10)
10 Tape operation lamps (ONLY FOR UX-P6R and UX-P5R) (17, 18)
• ◄ ► (tape direction) and REC lamps
11 ⏏ (disc tray open/close) button (14)
Pressing this button also turns on the unit.
12 Disc tray
13 FM/AM button (9, 11)
Pressing this button also turns on the unit.
14 Display window
15 CLOCK button (9)
16 VOLUME + / – control (10)
17 TIMER button (20, 21)
18 ►►I (forward search) button (9, 11, 14, 16, 17, 20)
19 ■ (stop) button (14 – 19)
20 I◄◄ (reverse search) button (9, 11, 14, 17, 20)
21 REV.MODE (reverse mode) button (17 – 19)
22 Cassette holder
23 REC button (18, 19)
24 ⏏ (eject) button for cassette deck (17 – 19)

Display Window

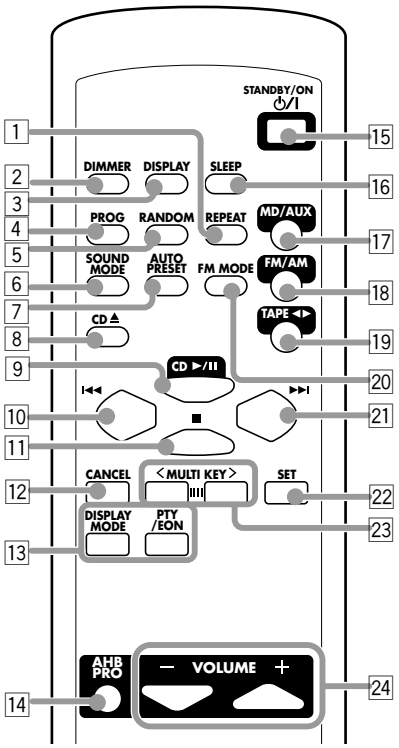
1 Tape operation indicators
• ◄ ► (tape direction) and ⇄ (reverse mode) indicators
2 Timer indicators
• ⏲ (timer), DAILY, REC and SLEEP indicators
3 REC indicator
4 RDS operation indicators
• RDS, EON, and TA/NEWS/INFO indicators
5 CLOCK indicator
6 CD play mode indicators
• PRGM (program), RANDOM, and repeat (↻/↻ ALL) indicators
7 BASS (Active Hyper Bass) indicator
8 SOUND (sound mode) indicator
9 Tuner operation indicators
• MONO and ST (stereo) indicators
10 Main display
• Shows the source name, frequency, etc.



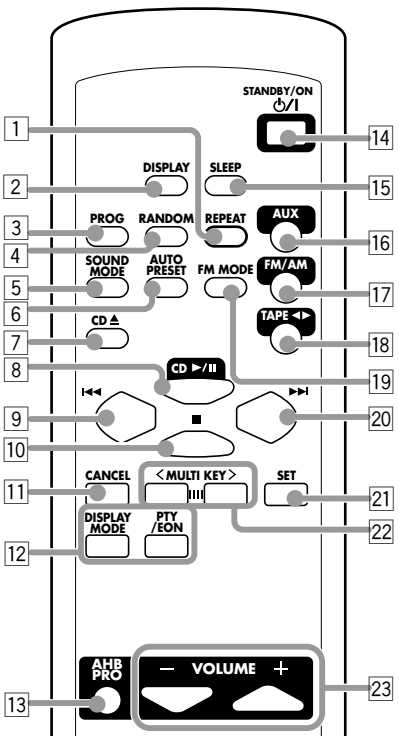
When using the remote control, point it at the remote sensor on the front panel.

Remote Control

UX-P6R and UX-P5R



UX-P4R and UX-P3R



UX-P6R and UX-P5R

1. REPEAT button (16)
2. DIMMER button (10)
3. DISPLAY button (9)
4. PROG (program) button (15)
5. RANDOM button (16)
6. SOUND MODE button (10)
7. AUTO PRESET button (11)
8. CD ▲ (disc tray open/close) button (14)
   Pressing this button also turns on the unit.
9. CD ►/II button (9, 14, 15)
   Pressing this button also turns on the unit.
10. I◄◄ (reverse search) button (11 – 14, 17)
11. ■ (stop) button (14 – 19)
12. CANCEL button (15)
13. RDS operation buttons (12, 13)
    • DISPLAY MODE and PTY/EON buttons
14. AHB (Active Hyper Bass) PRO button (10)
15. ⏻/I (STANDBY/ON) button (9)
16. SLEEP button (21)
17. MD/AUX button (9)
    Pressing this button also turns on the unit.
18. FM/AM button (9, 11)
    Pressing this button also turns on the unit.
19. TAPE ◄ ► button (9, 17)
    Pressing this button also turns on the unit.
20. FM MODE button (11)
21. ►►I (forward search) button (11 – 14, 16, 17)
22. SET button (11, 15)
23. MULTI KEY > / < buttons (11, 14 – 16)
24. VOLUME + / – buttons (10)

UX-P4R and UX-P3R

1. REPEAT button (16)
2. DISPLAY button (9)
3. PROG (program) button (15)
4. RANDOM button (16)
5. SOUND MODE button (10)
6. AUTO PRESET button (11)
7. CD ▲ (disc tray open/close) button (14)
   Pressing this button also turns on the unit.
8. CD ►/II button (9, 14, 15)
   Pressing this button also turns on the unit.
9. I◄◄ (reverse search) button (11 – 14, 17)
10. ■ (stop) button (14 – 19)
11. CANCEL button (15)
12. RDS operation buttons (12, 13)
    • DISPLAY MODE and PTY/EON buttons
13. AHB (Active Hyper Bass) PRO button (10)
14. ⏻/I (STANDBY/ON) button (9)
15. SLEEP button (21)
16. AUX button (9)
    Pressing this button also turns on the unit.
17. FM/AM button (9, 11)
    Pressing this button also turns on the unit.
18. TAPE ◄ ► button (9, 17)
    Pressing this button also turns on the unit.
19. FM MODE button (11)
20. ►►I (forward search) button (11 – 14, 16, 17)
21. SET button (11, 15)
22. MULTI KEY > / < buttons (11, 14 – 16)
23. VOLUME + / – buttons (10)

Supplied Accessories

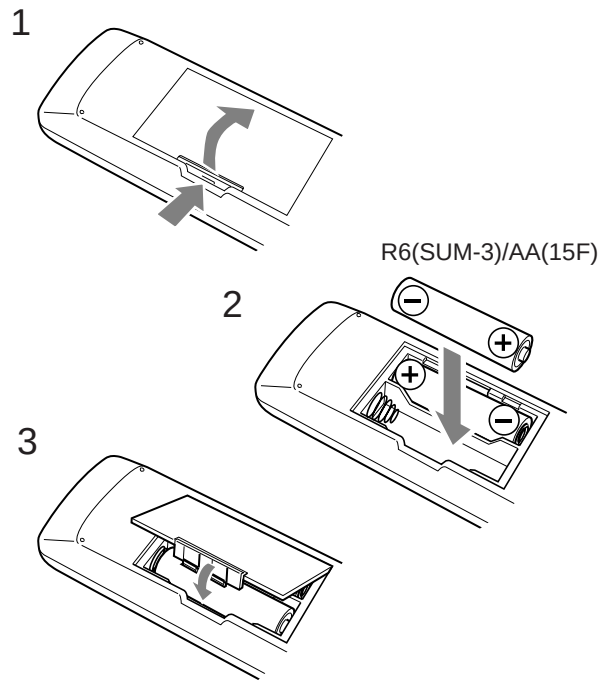
Make sure that you have all the following items.
The number in the parentheses indicates the quantity of the pieces supplied.

- AM loop antenna (1)
- FM antenna (1)
- Remote control (1)
- Batteries (2)

If anything is missing, consult your dealer immediately.

Putting the Batteries into the Remote Control

Insert the batteries — R6(SUM-3)/AA(15F) — into the remote control, by matching the polarity (+ and –) on the batteries with the + and – markings on the battery compartment.
When the remote control can no longer operate the unit, replace both batteries at the same time.

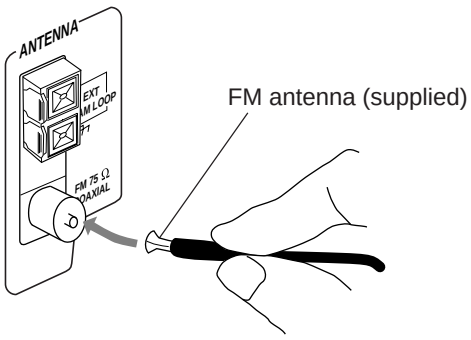


STOP!

- DO NOT use an old battery together with a new one.
- DO NOT use different types of batteries together.
- DO NOT expose batteries to heat or flame.
- DO NOT leave the batteries in the battery compartment when you are not going to use the remote control for an extended period of time. Otherwise, it will be damaged from battery leakage.

Connecting Antennas

FM antenna



1 **Attach the FM antenna to the FM 75 Ω COAXIAL terminal.**

2 **Extend the FM antenna.**

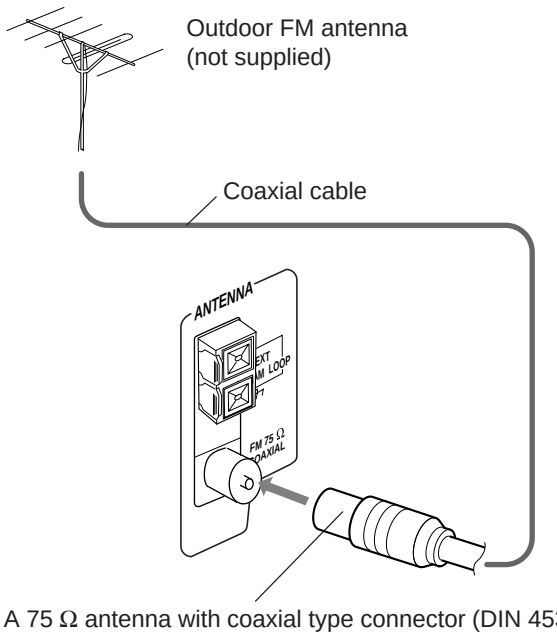
3 **Fasten it up in the position which gives you the best reception, then fix it on the wall, etc.**

notes **About the supplied FM antenna**

The FM antenna supplied with this unit can be used as temporary measure. If reception is poor, you can connect an outdoor FM antenna.

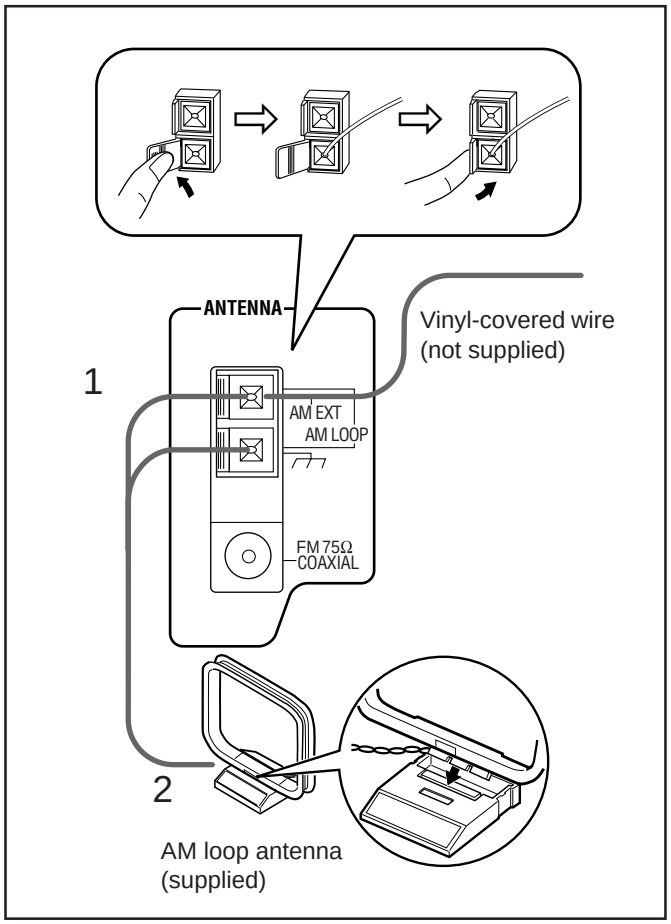
To connect an outdoor FM antenna

Before connecting it, disconnect the supplied FM antenna.



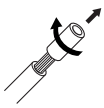
A 75 Ω antenna with coaxial type connector (DIN 45325) should be used.

AM (MW/LW) antenna



1 Connect the AM loop antenna to the AM LOOP terminals as illustrated.

- If the AM loop antenna wire is covered with vinyl, remove the vinyl by twisting it as shown in the diagram.



2 Turn the AM loop antenna until you have the best reception.

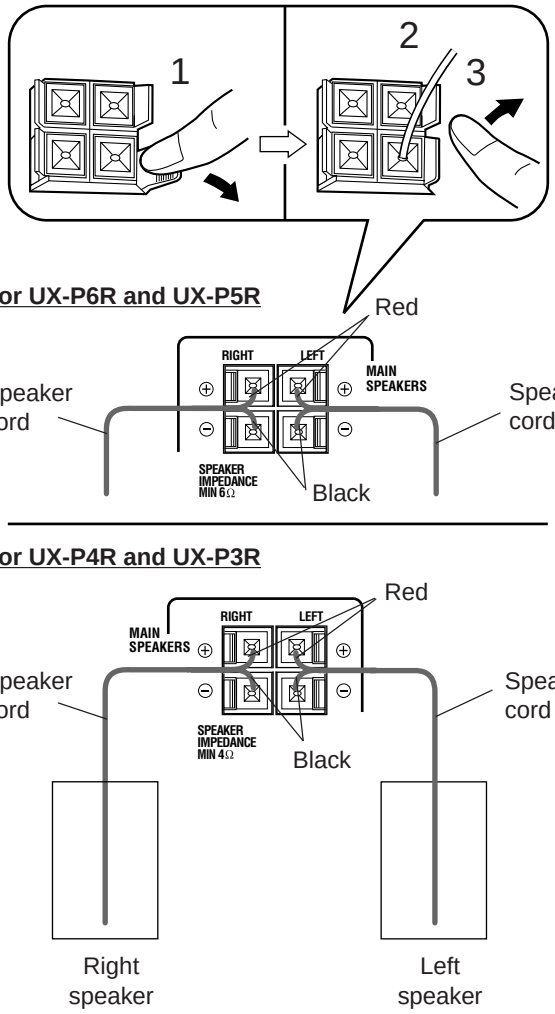
To connect an outdoor AM (MW/LW) antenna

When reception is poor, connect a single vinyl-covered wire to the AM EXT terminal and extend it horizontally. (The AM loop antenna must remain connected.)

notes **For better reception of both FM and AM (MW/LW)**

- Make sure the antenna conductors do not touch any other terminals and connecting cords.
- Keep the antennas away from metallic parts of the unit, connecting cords, and the AC power cord.

Connecting Speakers



1 Press and hold the clamp of the speaker terminal on the rear of the unit.

2 Insert the end of the speaker cord into the terminal.

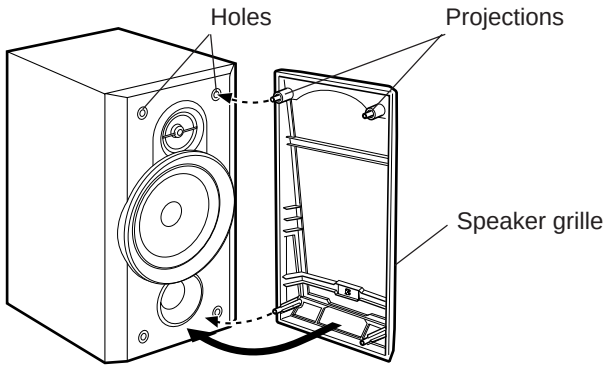
Match the polarity of the speaker terminals: Red (+) to red (+) and black (–) to black (–).

3 Release the finger from the clamp.

IMPORTANT: Use only speakers with the same speaker impedance as indicated by the speaker terminals on the rear of the unit.

To remove the speaker grilles (ONLY FOR UX-P6R and UX-P5R)

The speaker grilles are removed as the illustrations below.



To remove the speaker grille, inserting your fingers at the top of the speaker grille, pull towards you. Then pull the bottom towards you.

To attach the speaker grille, put the projections of the speaker grille into the holes of the speaker.

Connecting Other Equipment

For UX-P6R and UX-P5R:

You can connect both of the analog and digital equipment.

For UX-P4R and UX-P3R:

You can connect audio equipment — used only as a playback device.

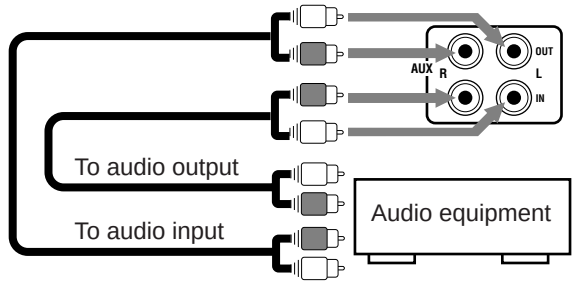
STOP!

- DO NOT connect any equipment while the power is on.
- DO NOT plug in any equipment until all connections are complete.

To connect audio equipment

Be sure that the plugs of the audio cords are colored: White plugs and jacks are for left audio signals, and red ones for right audio signals.

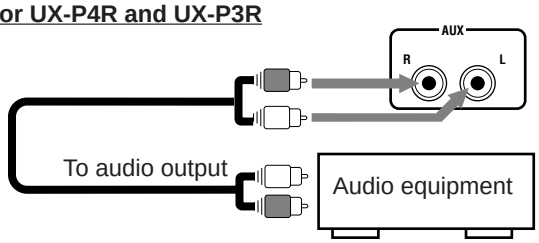
For UX-P6R and UX-P5R



By using audio cords (not supplied), connect:

- Between the audio input jacks on the other equipment and AUX OUT jacks: For recording on the other equipment.
- Between the audio output jacks on the other equipment and AUX IN jacks: For playing the other equipment.

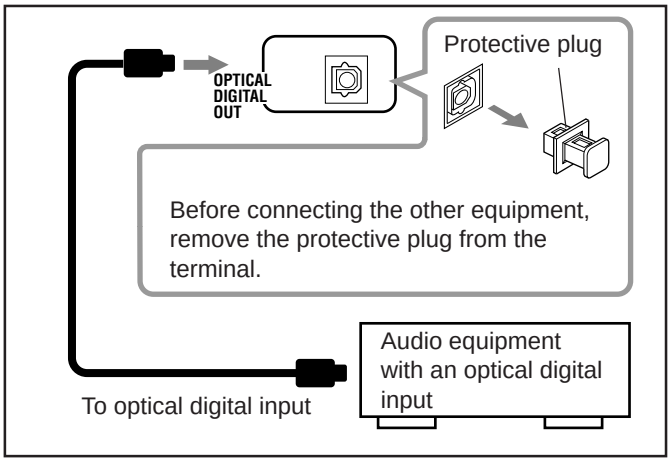
For UX-P4R and UX-P3R



For playing the other equipment through this unit, connect between the audio output jacks on the other equipment and AUX jacks by using audio cords (not supplied).

To connect audio equipment with an optical digital input terminal (ONLY FOR UX-P6R and UX-P5R)

You can record CD sound onto the connected digital equipment.


OPTICAL
DIGITAL
OUT
Protective plug
Before connecting the other equipment, remove the protective plug from the terminal.
Audio equipment with an optical digital input
To optical digital input

Connect an optical digital cord (not supplied) between the optical digital input terminal on the other equipment and the OPTICAL DIGITAL OUT terminal.

Now, you can plug the AC power cord.

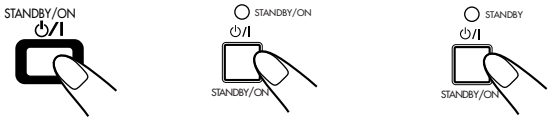
IMPORTANT: Be sure to check all connections to be done before plugging the AC power cord into a wall outlet.

Common Operations

Turning On the Power

When you press the play button — CD ►/II, TAPE ◄►, or the source selecting button — FM/AM, and MD/AUX (UX-P6R and UX-P5R) or AUX (UX-P4R and UX-P3R), the unit automatically turns on and starts playback if the source is ready.

To turn on the unit, press ⏻/I (STANDBY/ON).
For UX-P6R and UX-P5R:
The STANDBY/ON lamp on the unit lights green.
For UX-P4R and UX-P3R:
The STANDBY lamp on the unit goes out.



UX-P6R and UX-P5R UX-P4R and UX-P3R

To turn off the unit (on standby), press ⏻/I (STANDBY/ON) again.
For UX-P6R and UX-P5R:
The STANDBY/ON lamp lights red.
For UX-P4R and UX-P3R:
The STANDBY lamp lights up.

- The CLOCK indicatior flashes on the display until you set the built-in clock. After setting the clock, the clock time will appear on the display while the power is off.
- A little power is always consumed even while the unit is on standby.

To switch off the power supply completely, unplug the AC power cord from the AC outlet.

When you unplug the AC power cord or if a power failure occurs

The clock is reset to "0:00" right away, while the tuner preset stations (see page 11) will be erased in a few days.

Setting the Clock

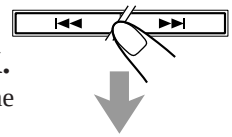
Before operating the unit any further, first set the clock built in this unit. When you plug the AC power cord into the wall outlet, the CLOCK indicator starts flashing on the display. You can set the clock whether the unit is on or off.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

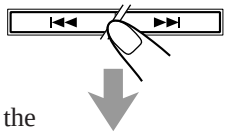
On the unit ONLY:

1 Press CLOCK for more than 2 seconds.
The hour digits start flashing on the display.

2 Press ►►I or I◄◄ to adjust the hour, then press CLOCK.
The minute digits start flashing on the display.



3 Press ►►I or I◄◄ to adjust the minute, then press CLOCK.
The CLOCK indicator remains lit on the display.



To check the clock time

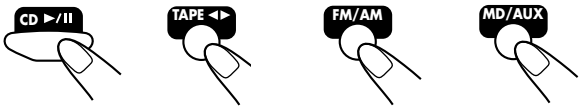
Press DISPLAY on the remote control (or CLOCK on the unit) while playing any source.

- Each time you press the button, the source indication and the clock time alternate on the display.

- When you unplug the AC power cord or if a power failure occurs, the clock loses the setting and is reset to "0:00." You need to set the clock again.
- The clock may gain or lose 1 to 2 minutes per month.

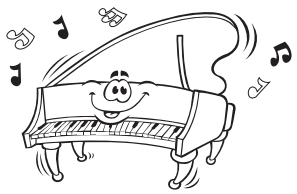
Selecting the Sources and Starting Play

To play back CDs, press CD ►/II. (See pages 14 – 16.)
To play back tapes, press TAPE ◄►. (See page 17.)
To listen to the FM/AM (MW/LW) broadcasts, press FM/AM. (See pages 11 – 13.)
To select the external equipment as the source, press MD/AUX (UX-P6R and UX-P5R) or AUX (UX-P4R and UX-P3R.)



UX-P6R and UX-P5R

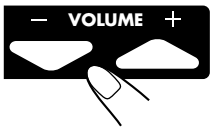
UX-P4R and UX-P3R



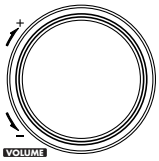
Adjusting the Volume

You can adjust the volume level only while the unit is turned on. The volume level can be adjusted between "VOLUME 0" and "VOLUME40."

When using the remote control, press VOLUME + to increase the volume or press VOLUME – to decrease it.



When using the unit, turn VOLUME + / – clockwise (+) to increase the volume or counterclockwise (–) to decrease it.



VOLUME 15

For private listening

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers. Be sure to turn down the volume before connecting or putting on headphones.

DO NOT turn off (on standby) the unit with the volume set to an extremely high level; otherwise, a sudden blast of sound can damage your hearing, speakers and/or headphones when you turn on the unit or start playing any source next time. REMEMBER you cannot adjust the volume level while the unit is on standby.

Selecting the Display Brightness (ONLY FOR UX-P6R and UX-P5R)

You can change the display brightness only while the unit is turned on.

To change the display brightness, press DIMMER on the remote control.

- Each time you press the button, the display dims and brightens alternately.

Reinforcing the Bass Sound

You can reinforce the bass sound to maintain rich ("AHB 1" and "AHB 2"), full bass at low volume. This function only affects the playback sound, but does not affect your recording.

To get the effect, press AHB (Active Hyper Bass) PRO until "AHB 1" or "AHB 2" appears on the display. The BASS indicator also lights up on the display.

AHB 1
BASS

- Each time you press the button, the bass sound change as follows:

AHB 1 → AHB 2 → AHB OFF (Canceled) → AHB 1

"AHB 2" has much more bass reinforcement effect than "AHB 1."

To cancel the effect, press AHB PRO until "AHB OFF" appears on the display. The BASS indicator goes off.

Selecting the Sound Modes

You can select one of the 4 preset sound modes. This function only affects the playback sound, but does not affect your recording.

To select the sound modes, press SOUND MODE on the remote control (or SOUND on the unit) until the sound mode you want appears on the display. The SOUND indicator also lights up on the display.

ROCK
SOUND

- Each time you press the button, the sound modes change as follows:

ROCK → POP → CLASSIC → JAZZ → FLAT (Canceled) → ROCK

ROCK: Gives a heavy sound. Boosts low and high frequency.
POP: Good for vocal music.
CLASSIC: Good for classical music.
JAZZ: Gives a feeling of live atmosphere. Good for acoustic music.
FLAT: The sound mode is canceled. The SOUND indicator goes off.

Listening to FM and AM (MW/LW) Broadcasts

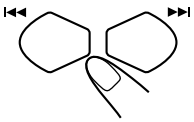
Tuning in a Station

1 Press FM/AM.

The unit automatically turns on and tunes in the previously tuned station (either FM or AM — MW/LW).

- Each time you press the button, the band alternates between FM and AM (MW/LW).

2 Press and hold ►►I or I◄◄ for more than 1 second.



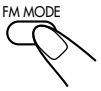
The unit starts searching for stations and stops when a station of sufficient signal strength is tuned in.
If a program is broadcast in stereo, the ST (stereo) indicator lights up.

To stop searching, press ►►I or I◄◄.

When you press ►►I or I◄◄ briefly and repeatedly
The frequency changes step by step.

To change the FM reception mode

When an FM stereo broadcast is hard to receive or noisy, press FM MODE on the remote control so that the MONO indicator lights up on the display. Reception improves.



To restore the stereo effect, press FM MODE again so that the MONO indicator goes off. In this stereo mode, you can hear stereo sounds when a program is broadcasted.

Presetting Stations

You can preset 30 FM and 15 AM (MW/LW) stations — using either automatic presetting or manual presetting.
In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

To preset stations automatically — Automatic Presetting

You need to preset stations separately for the FM and AM (MW/LW) bands.

On the remote control ONLY:

1 Press FM/AM to select the band.

- Each time you press the button, the band alternates between FM and AM (MW/LW).

2 Press and hold AUTO PRESET for more than 2 seconds.

Local stations with strong signals are searched and stored in memory automatically.
When automatic presetting is over, the station stored in preset number 1 is received.

3 Repeat steps 1 and 2 to store stations for the other band.

When you cannot automatically store stations you want
Stations with weak signals cannot be detected with this automatic presetting. To store such a station, use the manual presetting.

To preset stations manually — Manual Presetting

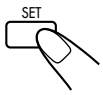
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 2 again.

On the remote control ONLY:

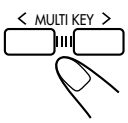
1 Tune in the station you want to preset.

- See "Tuning in a Station."

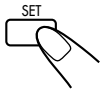
2 Press SET.



3 Press MULTI KEY > or MULTI KEY < to select a preset number.



4 Press SET again.



The tuned station in step 1 is stored in the preset number selected in step 3.

- Storing a new station on a used number erases the previously stored one.

When you unplug the AC power cord or if a power failure occurs
The preset stations will be erased in a few days. If this happens, preset the stations again.

Tuning in a Preset Station

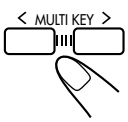
On the remote control ONLY:

1 Press FM/AM.

The unit automatically turns on and tunes in the previously tuned station (either FM or AM — MW/LW).

- Each time you press the button, the band alternates between FM and AM (MW/LW).

2 Press MULTI KEY > or MULTI KEY < to select a preset number.



Receiving FM Stations with RDS

Continued

RDS (Radio Data System) allows FM stations to send an additional signal along with their regular program signals. For example, the stations send their station names, as well as information about what type of program they broadcast, such as sports or music, etc.
When tuned to an FM station which provides the RDS service, the RDS indicator lights up on the display.
With the unit, you can receive the following types of RDS signals.

PS (Program Service):
Shows commonly known station names.

PTY (Program Type):
Shows types of broadcast programs.

RT (Radio Text):
Shows text messages the station sends.

EON (Enhanced Other Networks):
Provides the information about the types of the programs sent by other RDS stations.

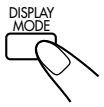
More about RDS
- Some FM stations do not provide RDS signals.
- RDS services vary among FM RDS stations. For details on RDS services in your area, check with local radio stations.
- RDS may not work correctly if the received station is not transmitting the signals properly or if the signal strength is weak.

Changing the RDS Information

You can see RDS information on the display while listening to an FM station.

On the remote control ONLY:

Press DISPLAY MODE.



- Each time you press the button, the display changes to show the following information:

PS (Program Service) → PTY (Program Type) → RT (Radio Text) → Station frequency (or preset channel no.) → PS

If no PS, PTY, or RT signals are sent by a station
"NO PS," "NO PTY," or "NO RT" appears on the display.

On the characters displayed
When the display shows PS, PTY or RT signals:
– The display shows upper case letters only.
– The display cannot show accented letters; For example, "A" may represent accented "A's" like "Á, Â, Ã, À, Ä and Å."

Searching for Programs by PTY Codes (PTY Search)

One of the advantages of RDS is that you can locate a particular kind of program by specifying the PTY codes.
- For details on the PTY codes, see "Additional Information" on page 22.

To search for a program using the PTY codes
REMEMBER you must preset FM RDS stations to use the EON function. If not yet done, see page 11.
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

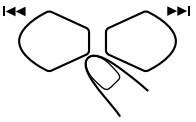
On the remote control ONLY:

1 Press PTY/EON until "PTY" and "SELECT" alternately appear on the display.

- Each time you press the button, RDS operation mode changes as follows:

PTY SELECT → EON SELECT (See page 13.) → Canceled → PTY SELECT

2 Press ▶▶| or |◀◀ until the PTY code you want appears on the display.



- Each time you press the button, the PTY codes change as follows:

NEWS ⇄ AFFAIRS ⇄ INFO ⇄ SPORT ⇄
EDUCATE ⇄ DRAMA ⇄ CULTURE ⇄
SCIENCE ⇄ VARIED ⇄ POP M ⇄ ROCK M ⇄
EASY M ⇄ LIGHT M ⇄ CLASSICS ⇄
OTHER M ⇄ WEATHER ⇄ FINANCE ⇄
CHILDREN ⇄ SOCIAL ⇄ RELIGION ⇄
PHONE IN ⇄ TRAVEL ⇄ LEISURE ⇄ JAZZ ⇄
COUNTRY ⇄ NATION M ⇄ OLDIES ⇄
FOLK M ⇄ DOCUMENT ⇄ TRAFFIC ⇄
(back to the beginning)

3 Press PTY/EON once again.

While searching, "SEARCH" and the selected PTY code alternately appear on the display.
The unit searches 30 preset FM stations, stops when it finds the one you have selected ("FOUND" appears), and tunes in that station.
- If no program is found, "NOTFOUND" appears on the display and the unit returns to the last received station.

To stop searching any time during the process
Press PTY/EON while searching.

Switching to a Program Type of Your Choice Temporarily

By receiving EON (Enhanced Other Networks) data sent by FM RDS stations, the EON function allows the unit to switch temporarily to a broadcast program of your choice (TA, NEWS, and INFO) from a different station.

- The EON function only works when you are listening to a preset FM RDS stations providing EON data.
- The EON indicator lights while receiving a station with the EON data.

To activate the EON function

REMEMBER you must preset FM RDS stations to use the EON function. If not yet done, see page 11.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the remote control ONLY:

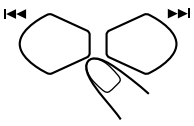
1 Press PTY/EON until "EON" and "SELECT" alternately appear on the display.

- Each time you press the button, RDS operation mode changes as follows:

PTY SELECT → EON SELECT
(See page 12.)
Canceled ←

2 Press ►►I or I◄◄ until the EON data type you want appears on the display.

The selected EON data type indicator also flashes.



- Each time you press the button, the EON data types change as follows:

TA ↔ NEWS ↔ INFO
OFF
(Canceled)

TA: Traffic announcement
NEWS: News
INFO: Program the purpose of which is to impart advice in the widest sense.
OFF: The EON function is canceled. The EON data type indicator (TA, NEWS, INFO) goes off.

3 Press PTY/EON once again.

The EON data type indicator stops flashing and remains lit.
Now, the EON function is activated. See "How the EON function actually works."

How the EON function actually works:

CASE 1

If there is no station broadcasting the program you have selected

The unit continues tuning in the current station.

⬇

When a station starts broadcasting the program you have selected, the unit automatically switches to the station. The indicator of received PTY code starts flashing.

⬇

When the program is over, "EON END" appears on the display, and the unit goes back to the previously tuned station, but the EON function still remains activated.

CASE 2

If there is a station broadcasting the program you have selected

The unit tunes in the program. The indicator of received PTY code starts flashing.

⬇

When the program is over, "EON END" appears on the display, and the unit goes back to the previously tuned station, but the EON function still remains activated.

CASE 3

If the FM station you are listening to is broadcasting the program you have selected

The unit continues to receive the station but the indicator of received PTY code starts flashing.

⬇

When the program is over, "EON END" appears on the display, and the indicator of received PTY code stops flashing and remains lit, but the EON function still remains activated.

More about the EON function

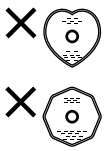
- The EON data sent from some stations may not be compatible with this unit. In this case, the EON function may not work correctly.
- While listening to a program tuned in by the EON function, the station does not change even if another network station starts broadcasting a program of the same EON data.
- The EON function is canceled when you change the source to CD, TAPE, or MD/AUX (AUX), while it is temporarily canceled when you change the source to AM (MW/LW).

Playing Back CDs (CD/CD-R/CD-RW)

Continued

This unit has been designed to playback the following CDs:
- CD
- CD-R
- CD-RW

Continued use of irregular shape CDs (heart-shape, octagonal, etc.) can damage the unit.



General Notes

In general, you will have the best performance by keeping your CDs and the mechanism clean.
- Store CDs in their cases, and keep them in cabinets or on shelves.
- Keep the unit's disc tray closed when not in use.

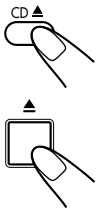
When playing a CD-R or CD-RW

User-edited CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) can be played back only if they are already "finalized".
- You can play back your original CD-Rs or CD-RWs recorded in music CD format. (However, they may not be played back depending on their characteristics or recording conditions.)
- Before playing back CD-Rs or CD-RWs, read their instructions or cautions carefully.
- Some CD-Rs or CD-RWs may not be played back on this unit because of their disc characteristics, damage or stain on them, or if the player's lens is dirty.
- CD-RWs may require a longer readout time. (This is caused by the fact that the reflectance of CD-RWs is lower than for regular CDs.)

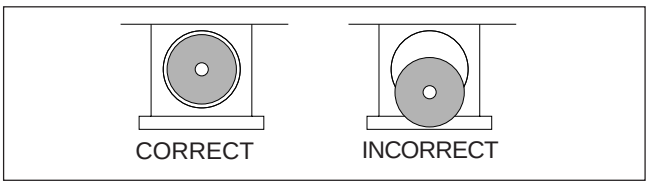
Playing Back the Entire CD — Normal Play

1 Press CD ⏏ on the remote control (or ⏏ on the CD player section).

The unit automatically turns on and the disc tray comes out.



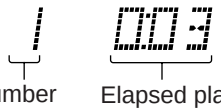
2 Place a disc correctly on the circle of the disc tray, with its label side up.



- When using a CD single (8 cm), place it on the inner circle of the disc tray.

3 Press CD ►/II.

The disc tray automatically closes and the first track of the CD starts playing.



Track number — Elapsed playing time

- The CD automatically stops when the last track of the CD has finished playing.

To stop playing, press ■.

Total track number — Total playing time

To remove the disc, press CD ⏏ on the remote control (or ⏏ on the CD player section).

notes

- **If the CD cannot be read correctly (because it is scratched, for example)**
  "00 0000" appears on the display.
- **If no CD is inserted**
  "NO DISC" appears on the display.
- **If a unreadable CD-R or CD-RW is inserted**
  "BLANK CD" appears on the display.

STOP! DO NOT try to open or close the CD tray by hand as it will be damaged.

Basic CD Operations

While playing a CD, you can do the following operations.

To stop play for a moment

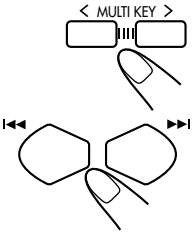
Press CD ►/II.

While pausing, the elapsed playing time flashes on the display.

To resume playing, press CD ►/II again.

To go to another track

Press MULTI KEY > / MULTI KEY < or ►►I / I◄◄ repeatedly before or during playback.



- MULTI KEY > or ►►I :
  Skips to the beginning of the next or succeeding tracks.
- MULTI KEY < or I◄◄ :
  Goes back to the beginning of the current or previous tracks.

To locate a particular point in a track

During play, press and hold ►►I or I◄◄.
- ►►I : Fast-forwards the tracks.
- I◄◄ : Fast-reverses the tracks.

Programming the Playing Order of the Tracks — Program Play

You can arrange the order in which tracks play before you start playing. **You can program up to 20 tracks.**

On the remote control ONLY:

1 Load a CD.

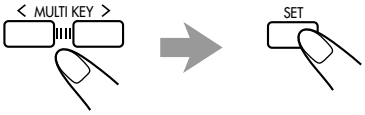
- If the current playing source is not the CD player, press CD ►/II, then ■ before going to the next step.

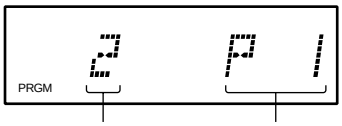
2 Press PROG (program).

The PRGM (program) indicator lights up on the display.

- If a program has been stored in memory, the program is called up.

3 Press MULTI KEY > or MULTI KEY < to select the track number, then press SET.





Track number Program step number

4 Repeat step 3 to program other tracks you want.

5 Press CD ►/II.

The tracks are played in the order you have programed.

To stop playing, press ■.

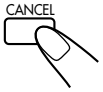
To exit from Program play mode, press ■ before or after playing. The PRGM (program) indicator goes off. All the programed tracks will be cleared.

- Disc ejection also erases the program.

To check the program contents

You can check the program contents by pressing PROG on the remote control. The programed tracks are shown in the programed order.

To modify the program



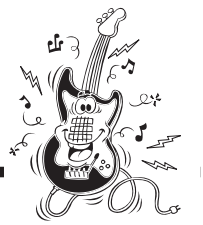
Before or after playing, you can erase the last programed track by pressing CANCEL on the remote control.

- Each time you press the button, the last programed track is erased from the program.

To add tracks in the program before playing, simply select the track numbers you want to add by following step 3 of the programming procedure.

notes

- **If you try to program the 21st track**
  "FULL" will appear on the display.
- **If the total playing time is 100 minutes or more**
  The total playing time will not be shown. "– –:– –" will appear.



Playing at Random — Random Play

The tracks will play in no particular order when you use this mode.

On the remote control ONLY:

To use Random play mode, press RANDOM before or during playing.
The RANDOM indicator lights up on the display.

The tracks are played at random.
Random play ends when all the tracks are played once.

To skip the current track, press ►►I or MULTI KEY >.
- You cannot go back to the previous track by pressing I◄◄ or MULTI KEY <.

To stop playing, press ■.
- Random play mode is also canceled.

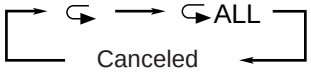
To exit from Random play mode, press RANDOM again before or during playing. Random play mode is canceled and Normal play resumes.

Repeating Tracks — Repeat Play

You can have all the tracks, the program or individual track currently playing to repeat as many times as you like.

On the remote control ONLY:

To repeat playing, press REPEAT before or during playing.
- Each time you press the button, Repeat play mode changes as follows, and the following indicator lights up on the display:



: Repeats one track.
ALL : In Normal play mode, repeat all the tracks.
In Program play mode, repeat all the tracks in the program.
In Random play mode, repeats all the tracks in random order.

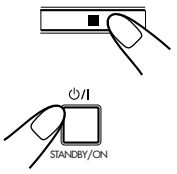
To stop playing, press ■.

To cancel Repeat play, press REPEAT repeatedly until the repeat indicator goes off from the display.
- In Random play cannot be selected. If is selected when you press RANDOM, it is canceled (goes off.)
- Repeat mode remains in effect even when you change the play mode.

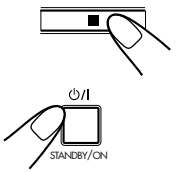
Prohibiting Disc Ejection — Tray Lock

You can lock the disc tray and prohibit to eject the CD.
- This is possible only while the unit is turned on.

On the unit ONLY:



To prohibit disc ejection, press ⏻/I (STANDBY/ON) while holding ■. (If the disc tray is opened, close it first.)
"LOCKED" appears for a while, and the disc tray is locked.



To cancel the prohibition and unlock the CD, press ⏻/I (STANDBY/ON) while holding ■.
"UNLOCKED" appears for a while, and the disc tray is unlocked.

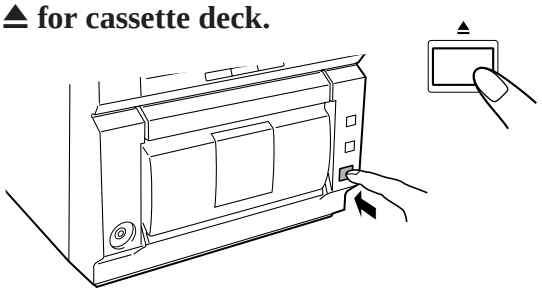
notes **If you try to eject the CD,**
"LOCKED" appears to inform you that the disc tray is locked.

Playing Back Tapes

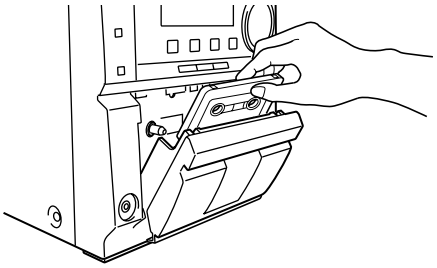
You can play back type I, type II, and type IV tapes without changing any settings.

Playing Back a Tape

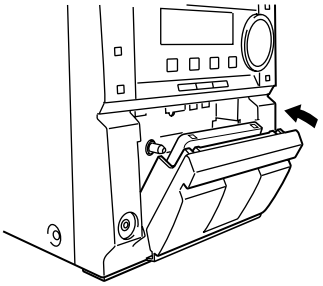
1 Press ⏏ for cassette deck.



2 Put a cassette in with the exposed part of the tape down.



3 Close the cassette holder gently.



4 Press TAPE ◄►.

The unit automatically turns on and the tape play starts. The tape direction indicator (► or ◄) flashes slowly on the display.

- Each time you press the button, the tape direction changes.
  ► : plays the front side.
  ◄ : plays the reverse side.

ONLY FOR UX-P6R and UX-P5R:
The tape direction lamp on the unit starts flashing to indicate the tape running direction.

When the tape plays to the end, the deck automatically stops if the reverse mode is set to ⇄ or →. (See "To play both sides — Reverse Mode.")

To stop playing, press ■.

To fast-wind to the left or to the right, press ►►I or I◄◄ while the tape is not running.
The tape direction indicator (◄ or ►) starts flashing quickly on the display.

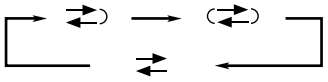
To remove the cassette, press ⏏ for cassette deck.

To play both sides — Reverse Mode

You can set the deck to play just one side of a tape, both sides once, or both sides continuously.

Press REV.MODE on the unit.

- Each time you press the button, reverse mode changes as follows:



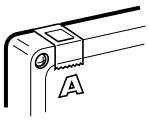
⇄ : The deck automatically stops after playing both sides of the tape. (Stops when playback in the ◄ direction is finished.)
⇄ : The deck continues to play both sides of the tape until ■ is pressed.
→ : The deck automatically stops after playing one side of the tape.

The use of the C-120 or thinner tape is not recommended, since characteristic deterioration may occur and this tape easily jams in the pinch-rollers and the capstans.

IMPORTANT:

- **It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic embodied therein.**
- The recording level is automatically set correctly, so it is not affected by the VOLUME, AHB (Active Hyper Bass) PRO, and SOUND MODE settings. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
- If recordings you have made have excessive noise or static, the unit may be too close to a TV. Increase the distance between the TV and the unit.
- You can use type I tape for recording.

To protect your recording



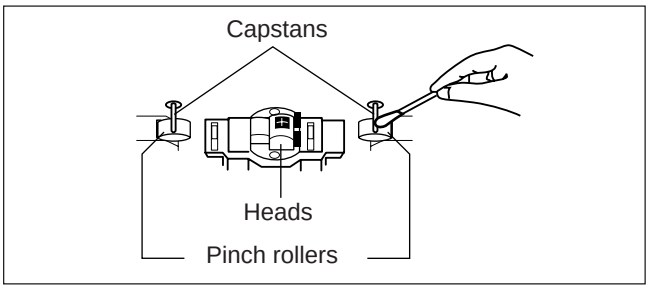
Cassettes have two small tabs on the back to protect from unexpected erasure or re-recording.
To protect your recording, remove these tabs.
To re-record on a protected tape, cover the holes with adhesive tape.

To keep the best recording and playback sound quality

If the heads, capstans, and pinch rollers of the cassette decks become dirty, the following will occur:

- Impaired sound quality
- Discontinuous sound
- Fading
- Incomplete erasure
- Difficulty in recording

To clean the heads, capstans, and pinch rollers
Use a cotton swab moistened with alcohol.



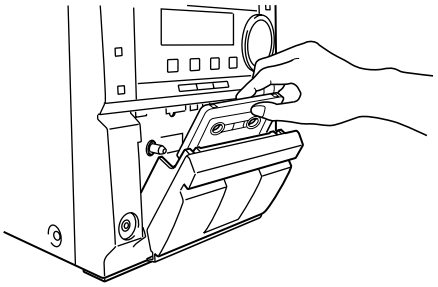
To demagnetize the heads
Turn off the unit, and use a head demagnetizer (available at electronics and audio shops).

notes **At the start and end of cassette tapes**
There is leader tape which cannot be recorded onto. Thus, when recording CDs or radio broadcasts, wind the leader tape first to ensure that the recording will be made without any music part lost.

Recording on a Tape

On the unit ONLY:

1 Put a recordable cassette in with the exposed part of the tape down.



2 Close the cassette holder gently.

- If you want to record on both sides of a tape, see "To record on both sides — Reverse Mode."

3 Check the recording direction for the tape.

- If the tape direction is not correct, press TAPE ◄ ► twice then ■ to change the tape direction.

4 Start playing the source — FM, AM or auxiliary equipment connected to AUX jacks.

- When the source is CD, see "CD Direct Recording" on page 19.

5 Press REC.

The REC indicator lights up on the display and recording starts.

ONLY FOR UX-P6R and UX-P5R:
The REC lamp on the unit also lights red.

◄ REC ►

To stop recording, press ■.

To remove the cassette, press ⏏ for cassette deck.

To record on both sides — Reverse Mode

Press REV.MODE on the unit until the ⇄ indicator is lit.

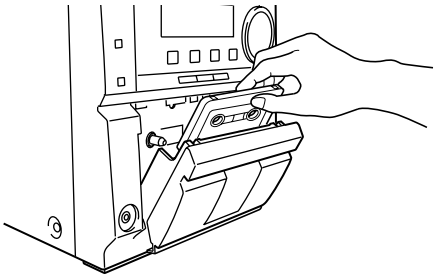
- When using the reverse mode for recording, start recording in the forward (►) direction first. Otherwise, recording will stop when recording is done only on one side (reverse) of the tape.

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have made for Program play.

On the unit ONLY:

1 Put a recordable cassette in with the exposed part of the tape down.



2 Place a disc correctly on the circle of the disc tray, with its label side up.

- If the current playing source is not the CD player, press CD ►/II, then ■ before going to the next step.
- If you want to record on both sides of a tape, see "To record on both sides — Reverse Mode."
- If you do not want pauses of about 4 seconds recorded between selections, press CD ►/II twice. If nothing is done, non-recorded pause will be automatically recorded between selections.

3 Press REC.

The REC indicator lights up on the display and recording starts.
After recording, the CD player and cassette deck automatically stop.

To stop CD Direct Recording, press ■. The tape stops after 4 seconds.

To remove the cassette, press ⏏ for the cassette deck.

To record on both sides — Reverse Mode

Press REV.MODE on the unit until the ⇄ indicator is lit.

- When using the reverse mode for CD Direct Recording, start recording in the forward (►) direction first. When the tape reaches its end while recording a song in the forward direction (►), the last song will be re-recorded at the beginning of the reverse side (◄).

  If you start recording on the reverse side (◄), recording will stop when recording is done only on one side (reverse) of the tape.

When making SLEEP timer settings while doing CD Direct recording

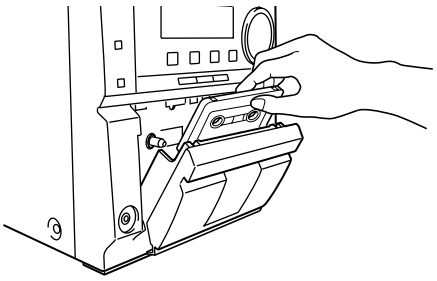
Set enough time to allow for the CD to finish playing; otherwise the power will go off before recording is completed.

One Track Recording

This recording method is convenient when you record tracks while playing a CD. You can only record your favorite songs on the tape.

On the unit ONLY:

1 Put a recordable cassette in with the exposed part of the tape down.



2 Play the track on the CD you wish to record.

3 Press REC.

The CD player returns to the beginning of that track and the track is recorded on the tape. After recording, the CD player and cassette deck automatically stop.

4 Repeat steps 2 and 3 to record other tracks you want.

Using the Timers

Continued

There are three timers available — Daily Timer, Recording Timer, and Sleep Timer.

Before using the timers, you need to set the clock built in the unit (see page 9). When you press TIMER on the unit for more than 3 seconds, the display alternates between "ADJUST" and "CLOCK" for about 5 seconds.

Using Daily Timer and Recording Timer

You can set the timer whether the unit is on or off.

When the on-time comes, the unit automatically turns on (the ⏲ indicator flashes just before the on-time, and continues flashing while the timer is operating). Then, when the off-time comes, the unit automatically turns off (on standby). The timer setting remains in memory until you change it.

- When the DAILY indicator is lit on the display, the timer acts as the Daily Timer. Once the Daily Timer has been set, it will be activated at the same time everyday until the timer is turned off.
- When the REC indicator is lit on the display, the timer acts as the Recording Timer. After the Recording Timer has been performed, the details of the setting remain stored but the timer is turned off.

Before you start...
When using "TUNER" as the source to play, make sure to select the desired station before turning off the power.

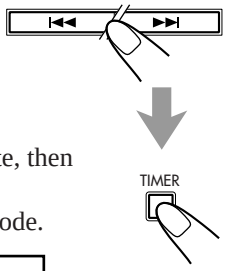
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the unit ONLY:

1 Press and hold TIMER for more than 3 seconds.

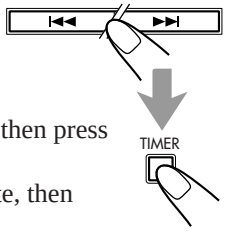
The timer (⏲) indicator lights up, and the timer mode indicator (DAILY or REC) and the current on-time flash on the display.
The unit enters on-time setting mode.

2 Set the on-time you want the unit to turn on at.



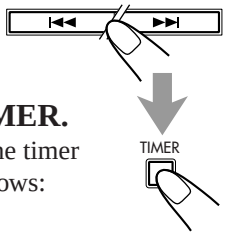
1) Press ▶▶| or |◀◀ to set the hour, then press TIMER.
2) Press ▶▶| or |◀◀ to set the minute, then press TIMER.
The unit enters off-time setting mode.

3 Set the off-time you want the unit to turn off (on standby) at.

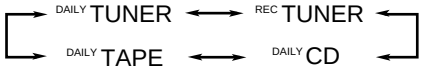


1) Press ▶▶| or |◀◀ to set the hour, then press TIMER.
2) Press ▶▶| or |◀◀ to set the minute, then press TIMER.
The unit enters source selecting mode.

4 Press ▶▶| or |◀◀ to select the timer mode (Daily Timer or Recording Timer) and the source to play, then press TIMER.

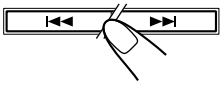


- Each time you press ▶▶| or |◀◀, the timer mode and the source change as follows:



DAILY TUNER: tunes into the last station you were listening to. (Daily Timer)
REC TUNER: records the last station you were listening to. (Recording Timer)
• Put a recordable cassette into the deck.
DAILY CD: plays a CD. (Daily Timer)
DAILY TAPE: plays a tape. (Daily Timer)
• Make sure that the tape direction is correct.

5 Press ▶▶| or |◀◀ to set the volume level.

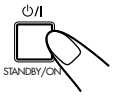


- You can select the volume level ("VOLUME 0" to "VOLUME40" and "VOLUME –"). If you select " VOLUME –," the volume is set to the last level when the unit has been turned off.

To turn off the volume while the Recording Timer (REC TUNER) is working, set the volume level "VOLUME 0."

6 Press TIMER to complete the timer setting.

7 Press ⏻/I (STANDBY/ON) to turn off the unit (on standby) if you have set the timer with the unit turned on.



- When the timer turns on the unit, the timer (⏲) indicator and the selected timer mode indicator (DAILY or REC) start flashing.

To cancel the setting, press and hold TIMER until the timer (⏲) indicator goes off from the display.

notes

- **If the unit is turned on when the timer-on time comes**
  Timer does not work.
- **When you unplug the AC power cord or if a power failure occurs**
  The timer will be canceled. You need to set the clock first, then the timer again.

Using Sleep Timer

With Sleep Timer, you can fall asleep to music.
You can set Sleep Timer when the unit is turned on.

How Sleep Timer actually works

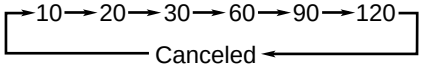
The unit automatically turns off after the specified time length passes.

On the remote control ONLY:

1 Press SLEEP.

The time length until the shut-off time appears and the SLEEP indicator lights up on the display.

- Each time you press the button, the time length changes as follows:



2 Wait for about 5 seconds after specifying the time length.

To check the remaining time until the shut-off time, press SLEEP once so that the remaining time until the shut-off time appears for about 5 seconds.

To change the shut-off time, press SLEEP repeatedly until the desired time length appears on the display.

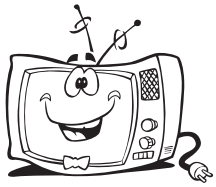
To cancel the setting, press SLEEP repeatedly until the SLEEP indicator goes off.

- Sleep Timer is also canceled when you turn off the unit.

notes

- **If you set the Sleep Timer after Daily Timer starts playing the selected source**
  Daily Timer is canceled.
- **If you set the Sleep Timer after Recording Timer starts recording**
  Recording Timer is canceled, but recording continues until Sleep Timer shuts off the power.

Additional Information



Description of the PTY codes:

NEWS:	News.
AFFAIRS:	Topical program expanding or enlarging upon the news — debate, or analysis.
INFO:	Program the purpose of which is to impart advice in the widest sense.
SPORT:	Program concerned with any aspect of sports.
EDUCATE:	Educational programs.
DRAMA:	All radio plays and serials.
CULTURE:	Programs concerning any aspect of national or regional culture, including language, theater, etc.
SCIENCE:	Programs about natural sciences and technology.
VARIED:	Used for mainly speech-based programs such as quizzes, panel games and personality interviews.
POP M:	Commercial music of current popular appeal.
ROCK M:	Rock music.
EASY M:	Current contemporary music considered to be "easy-listening."
LIGHT M:	Instrumental music, and vocal or choral works.
CLASSICS:	Performances of major orchestral works, symphonies, chamber music, etc.
OTHER M:	Music not fitting into any of the other categories.
WEATHER:	Weather reports and forecasts.
FINANCE:	Stock Market reports, commerce, trading etc.
CHILDREN:	Programs targeted at a young audience.
SOCIAL:	Programs about sociology, history, geography, psychology and society.
RELIGION:	Religious programs.
PHONE IN:	Involving members of the public expressing their views either by phone or at a public forum.
TRAVEL:	Travel information.
LEISURE:	Programs about recreational activities.
JAZZ:	Jazz music.
COUNTRY:	Songs which originate from, or continue the musical tradition of the American Southern States.
NATION M:	Current popular music of the nation or region in that country's language.
OLDIES:	Music from the so-called "golden age" of popular music.
FOLK M:	Music which has its roots in the musical culture of a particular nation.
DOCUMENT:	Program concerning factual matters, presented in an investigative style.
TRAFFIC:	Traffic announcement.

Classification of the PTY codes for some FM stations may be different from the above list.

Troubleshooting

If you are having a problem with your unit, check this list for a possible solution before calling for service.
If you cannot solve the problem from the hints given here, or the unit has been physically damaged, call a qualified person, such as your dealer, for service.

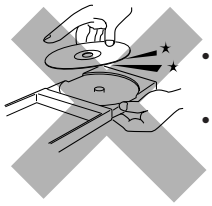
Symptom	Cause	Action
No sound is heard.	• Connections are incorrect or loose. • Headphones are connected.	• Check all connections and make corrections. (See pages 6 to 8.) • Disconnect the headphones.
Hard to listen to broadcasts because of noise.	• Antennas are disconnected. • The AM loop antenna is too close to the unit. • The FM antenna is not properly extended and positioned.	• Reconnect the antennas correctly and securely. • Change the position and direction of the AM loop antenna. • Extend the FM antenna at the best position.
The disc tray does not open or close.	The AC power cord is not plugged in.	Plug the AC power cord.
The disc does not play.	The disc is placed upside down.	Place the disc with the label side up.
The disc sound is discontinuous.	The disc is scratched or dirty.	Clean or replace the disc. (See page 23.)
The cassette holder cannot be opened.	Power supply from the AC power cord has been cut off while the tape was running.	Turn on the unit.
Impossible to record.	Small tabs on the back of the cassette are removed.	Cover the holes with adhesive tape.
Operations are disabled.	The built-in microprocessor may malfunction due to external electrical interference.	Unplug the AC power cord and then plug it back in.
Unable to operate the unit from the remote control.	• The path between the remote control and the remote sensor on the unit is blocked. • The batteries are exhausted.	• Remove the obstruction. • Replace the batteries.

Maintenance

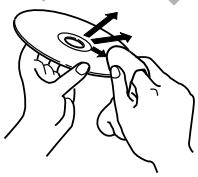
To get the best performance of the unit, keep your discs, tapes, and mechanism clean.

Handling discs

- Remove the disc from its case by holding it at the edge while pressing the center hole lightly.
- Do not touch the shiny surface of the disc, or bend the disc.
- Put the disc back in its case after use to prevent warping.



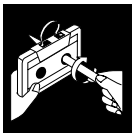
- Be careful not to scratch the surface of the disc when placing it back in its case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



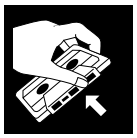
To clean the disc
Wipe the disc with a soft cloth in a straight line from center to edge.

DO NOT use any solvent — such as conventional record cleaner, spray, thinner, or benzine — to clean the disc.

Handling cassette tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.



- Be careful not to touch the tape surface.

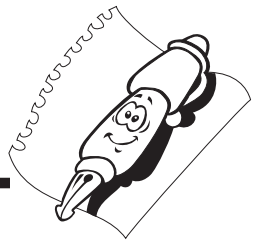
- Avoid the following places to store the tape:
  — In dusty places
  — In direct sunlight or heat
  — In moist areas
  — On a TV or speaker
  — Near a magnet

Cleaning the unit

- **Stains on the unit**
  Should be wiped off with a soft cloth. If the unit is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.
- **Since the unit may deteriorate in quality, become damaged or get its paint peeled off, be careful about the followings.**
  — DO NOT wipe it with a hard cloth.
  — DO NOT wipe it strong.
  — DO NOT wipe it with thinner or benzine.
  — DO NOT apply any volatile substance such as insecticides to it.
  — DO NOT allow any rubber or plastic to remain in contact with it for a long time.

Specifications

Design and specifications are subject to change without notice.



UX-P6R (CA-UXP6R and SP-UXP6)
UX-P5R (CA-UXP5R and SP-UXP5)

Amplifier

Output Power:
- 120 W (60 W + 60 W) at 6 Ω (MAX.)
- 100 W (50 W + 50 W) at 6 Ω (10 % THD)

Audio input sensitivity/Impedance (at 1 kHz)
- AUX: 400 mV/48 kΩ

Audio output level
- AUX: 260 mV/5.8 kΩ

Digital output — OPTICAL DIGITAL OUT
- Signal wave length: 660 nm
- Output level: –21 dBm to –15 dBm

Speakers/Impedance: 6 Ω – 16 Ω

Tuner

FM tuning range: 87.50 MHz – 108.00 MHz
AM tuning range:
- MW: 522 kHz – 1 629 kHz
- LW: 144 kHz – 288 kHz

CD player

Dynamic range: 85 dB
Signal-to-noise ratio: 90 dB
Wow and flutter: Immeasurable

Cassette deck

Frequency response
- Normal (type I): 50 Hz – 14 000 Hz

Wow and flutter: 0.15 % (WRMS)

General

Power requirement: AC 230 V ∿, 50 Hz
Power consumption: 90 W (at operation)
1.2 W (on standby)
Dimensions (approx.): 505 mm x 256 mm x 295 mm (W/H/D)
(20 1/8 in. x 10 1/8 in. x 11 5/8 in.)
Mass (approx.): 10.0 kg (22.1 lbs)

Supplied Accessories

See page 6.

Speaker

Speaker units: Woofer 12 cm (4 3/4 in.) cone x 1
Tweeter 4 cm (1 5/8 in.) cone x 1
Impedance: 6 Ω
Dimensions (approx.): 160 mm x 256 mm x 213 mm (W/H/D)
(6 5/16 in. x 10 1/8 in. x 8 7/16 in.)
Mass (approx.): 2.3 kg (5.1 lbs)

UX-P4R (CA-UXP4R and SP-UXP4)
UX-P3R (CA-UXP3R and SP-UXP3)

Amplifier

Output Power:
- 44 W (22 W + 22 W) at 4 Ω (MAX.)
- 40 W (20 W + 20 W) at 4 Ω (10 % THD)

Audio input sensitivity/Impedance (at 1 kHz)
- AUX: 400 mV/48 kΩ

Speakers/Impedance: 4 Ω – 16 Ω

Tuner

FM tuning range: 87.50 MHz – 108.00 MHz
AM tuning range:
- MW: 522 kHz – 1 629 kHz
- LW: 144 kHz – 288 kHz

CD player

Dynamic range: 85 dB
Signal-to-noise ratio: 90 dB
Wow and flutter: Immeasurable

Cassette deck

Frequency response
- Normal (type I): 50 Hz – 14 000 Hz

Wow and flutter: 0.15 % (WRMS)

General

Power requirement: AC 230 V ∿, 50 Hz
Power consumption: 50 W (at operation)
3.8 W (on standby)
Dimensions (approx.): 505 mm x 256 mm x 295 mm (W/H/D)
(20 1/8 in. x 10 1/8 in. x 11 5/8 in.)
Mass (approx.): 8.5 kg (18.8 lbs)

Supplied Accessories

See page 6.

Speaker

Speaker units: 8 cm (3 3/16 in.) cone x 1
Impedance: 4 Ω
Dimensions (approx.): 160 mm x 256 mm x 205 mm (W/H/D)
(6 5/16 in. x 10 1/8 in. x 8 1/8 in.)
Mass (approx.): 2.1 kg (4.7 lbs)

JVC

VICTOR COMPANY OF JAPAN, LIMITED

PARTS LIST

[UX-P3R]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe

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Cassette mechanism assembly and parts list ---------- 3- 5
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CD mechanism assembly and parts list ---------- 3- 9
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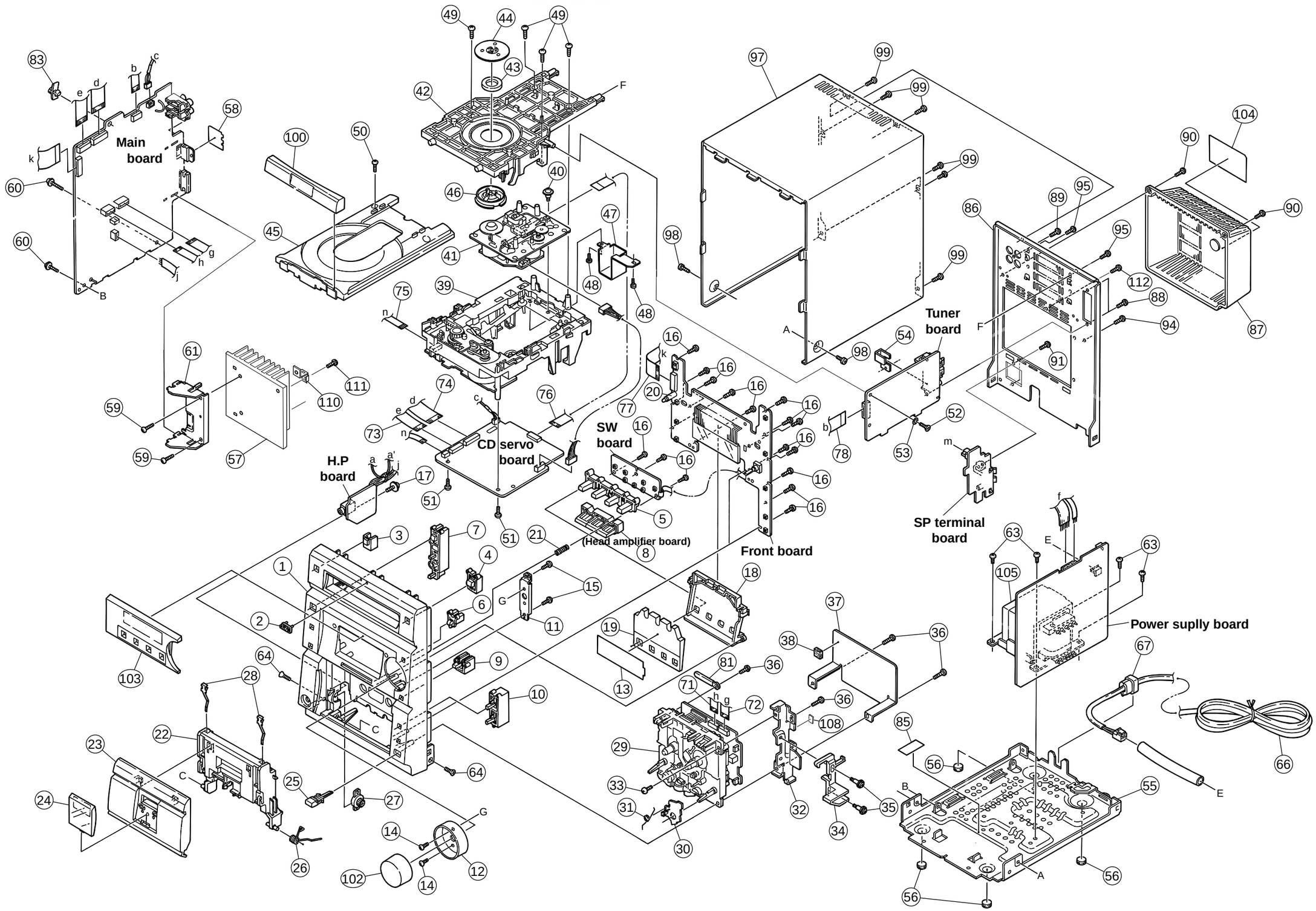
< MEMO >

Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	GV10064-001A	FRONT PANEL	1		
	2	GV40077-002A	JVC MARK	1		
	3	GV40147-001A	FINDER LENS	1		
	4	GV40150-001A	EJECT BUTTON	1		
	5	GV30158-001A	SELECT BUTTON	1		
	6	GV40153-001A	PUSH BUTTON	1		
	7	GV30156-001A	PUSH BUTTON	1		
	8	GV30159-001A	OPERAT.BUTTON	1		
	9	GV40149-001A	PUSH BUTTON	1		
	10	GV40151-001A	CASSETTE BUTTON	1		
	11	GV40158-001A	BRACKET	1		
	12	GV40156-001A	VOLUME PLATE	1		
	13	GV40179-001A	INDICATOR SHEET	1		
	14	QYSBSG3006Z	T.SCREW	2	VOL.ORN/ORN.BKT	
	15	QYSBSF3008Z	SCREW	2	ORN.BKT/F.PANEL	
	16	QYSBSF3008Z	SCREW	16	PWB BRD/F.PANEL	
	17	E65923-003	TAPPING SCREW	1	PHONE BRD./F.PANEL	
	18	GV30162-001A	DISPLAY HOLDER	1		
	19	GV40173-001A	LCD LENS	1		
	20	GV40194-001A	LED HOLDER	1	LED(STANDBY)	
	21	GV40212-001A	SPRING	1	INSIDE F.PANEL	
	22	GV20109-001A	CASSETTE HOLDER	1		
	23	GV20110-001A	DOOR	1		
	24	GV40213-001A	CASSETTE LENS	1		
	25	GV30178-002A	EJECT BUTTON	1		
	26	GV40161-001A	SPRING	1		
	27	GV40034-001A	DAMPER ASSY	1		
	28	VKY4180-401	CASSETTE SPRING	2		
	29	--------	CASSETTE MECHA	1		
	30	VKL7850-002	EJECT SAFTY(R)	1		
	31	VKW5258-003	TORSION SPRING	1	FOR EJECT SAFET	
	32	GV40162-001A	BRACKET	1		
	33	QYSBSG3008Z	T.SCREW	1	M.BKT/SLC MECHA	
	34	GV30173-002A	LOCK ARM	1		
	35	GV40164-001A	SPECIAL SCREW	2	LOCK ARM/M.BKT	
	36	QYSBSF3012Z	SCREW	4	SLC./F.PANEL	
	37	GV30124-001A	TRANSF.SHIELD	1		
	38	GV40170-003A	SPACER	1	SLC(MOTOR)/T.SHIELD	
	39	----------	LOADING BASE	1		
	40	E406293-001	SPECIAL SCREW	1	CD MECHA/LOAD.BASE	
	41	---------	CD MECHA	1	LOAD AS./CLAM.AS	
	42	GV10066-001A	CLAMPER BASE	1		
	43	VYH7313-005	MAGNET	1		
	44	E306836-223SS	CD YOKE (JES)	1		
	45	VYH1240-001	TRAY	1		
	46	E306835-221SS	CD CLAMPER	1		
	47	VMA4619-002	SHIELD CASE	1		
	48	QYSDSR2606Z	SCREW	2	FOR SHLD CASE	

■ Parts list (General assembly)

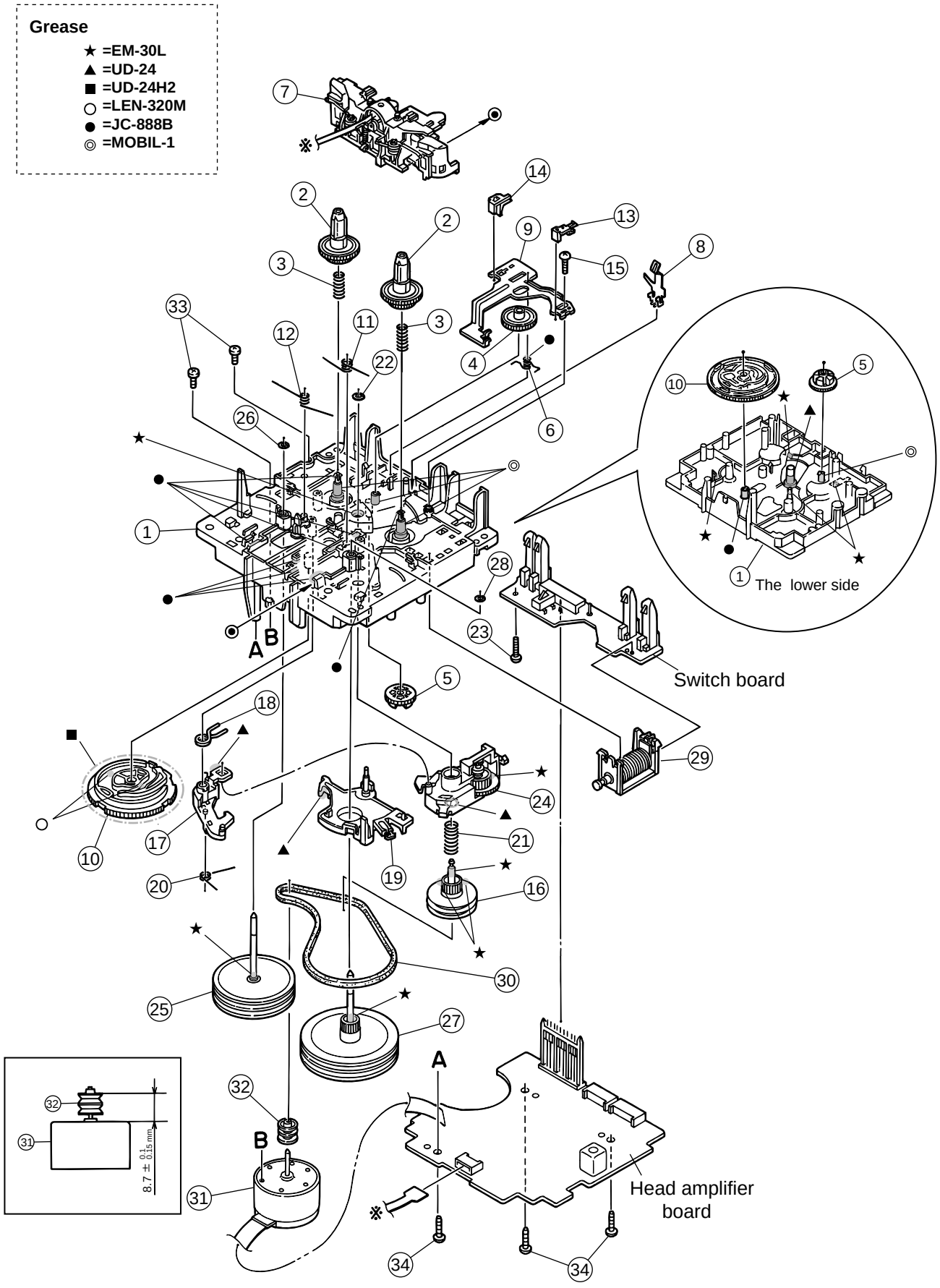
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	49	QYSBSF3008Z	SCREW	4	CLAMP.BASE/LOAD	
	50	QYSBSF3008Z	SCREW	1	CD TRAY STOPPER	
	51	QYSBSF3008Z	SCREW	2	CD BRD/LOAD.ASSY	
	52	QYSSSF3008Z	SCREW	1	TUNER/C.BASE ASSY	
	53	GV40122-003A	SPACER	1		
	54	GV40211-001A	EARTH PLATE	1		
	55	GV10065-001A	BOTTOM CHASSIS	1		
	56	GV40184-001A	FOOT	4	CHAS.BASE FOOT	
	57	GV30166-001A	HEAT SINK	1		
	58	GV40206-001A	SHEET	1		
	59	QYSBSF3012Z	SCREW	2	IC BKT./H.SINK	
	60	QYSBSFG3016Z	SCREW	2	PWB BRD/CHA.BASE	
	61	GV30168-001A	BRACKET	1		
	63	QYSBST4006Z	T.SCREW	4	TRANS/CHA.BASE	
	64	QYSSST3008Z	SCREW	2	F.PANEL/C.BASE	
	66	QMPK210-205-JN	POWER CORD	1		E,EN
		QMPN150-200-JC	POWER CORD	1		B
	67	QZW0033-001	STRAIN RELIEF	1		
	71	QUQ412-0914CJ	FFC WIRE	1	FC33	
	72	QUQ412-1018CJ	FFC WIRE	1	FC34	
	73	QUQ412-1314DJ	FFC WIRE	1	FC652	
	74	QUQ412-1614DJ	FFC WIRE	1	FC651	
	75	QUQ412-0507DJ	FFC WIRE	1	FC631	
	76	QUQ110-1509AJ	FFC WIRE	1	FC601	
	77	QUQ412-1710DJ	FFC WIRE	1	FC932	
	78	QUQ412-1332DJ	FFC WIRE	1	F1	
	81	VKZ4001-110S	WIRE HOLDER	1		
	83	GV40223-001A	SPACER	1	MAIN BRD./M.COVER	
	85	VYSA1R4-100	SPACER	1		
	86	GV10067-001A	REAR PANEL	1		
	87	GV10068-002A	REAR COVER	1		
	88	QYSBSGY3008E	SPECIAL SCREW	2	ANT.TEM/R.PANEL	
	89	QYSBSGY3008E	SPECIAL SCREW	1	AUX.TEM/R.PANEL	
	90	QYSBSGY3008E	SPECIAL SCREW	2	R.COVER/R.PANEL	
	91	QYSBSGY3008E	SPECIAL SCREW	2	SPEAKER/R.PANEL	
	94	QYSBSGY3008E	SPECIAL SCREW	1	R.PANEL/GROUND	
	95	QYSBSGY3008E	SPECIAL SCREW	2	R.PANEL/CLAMPER	
	97	GV10069-001A/S/	METAL COVER	1		
	98	QYSDSG3006M	T.SCREW	2	M.COVER/C.BASE	
	99	QYSBSGY3008E	SPECIAL SCREW	6	M.COVER/R.PANEL	
	100	GV30164-001A	TRAY FITTING	1		
	102	GV40154-001A	VOLUME KNOB	1		
	103	GV30160-001A	LCD LENS	1		
	104	GV30172-006A	RATING LABEL	1		
⚠	105	QQT0284-002	POWER TRANSF	1	T1000	
	108	GV40121-003A	SPACER	1		
	110	GV40167-001A	H.SINK BRACKET	1		
	111	QYSBSF3012Z	SCREW	1	H.SINK/H.SINK BKT	
	112	QYSBSGY3008E	TAPPING SCREW	1		

Cassette mechanism assembly and parts list

SLC-S21M

Block No. M 2 M M



■ Parts list (Cassette mechanism)

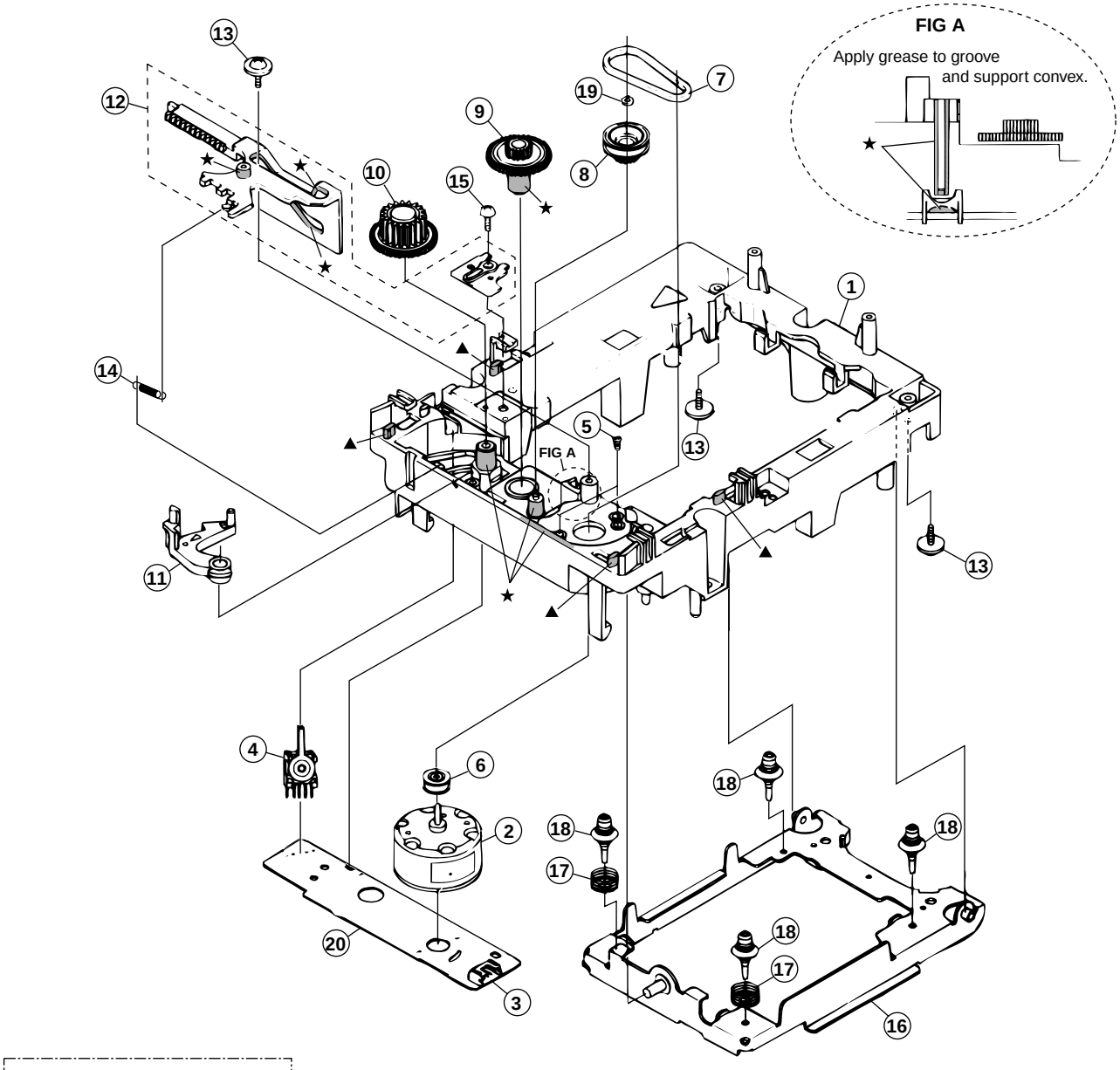
Block No. M2MM

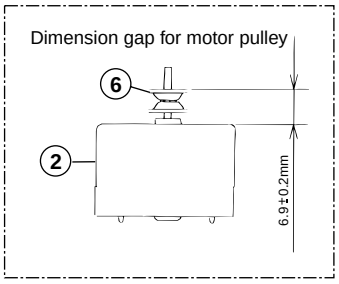
⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VKS1165-00J	CHASSIS B.ASS'Y	1		
	2	VKS2274-002	REEL GEAR	2		
	3	VKW5286-002	B.T. SPRING	2		
	4	VKS5559-001	PLAY IDLE GEAR	1		
	5	VKS5597-00B	BLIND	1		
	6	VKW5296-001	EARTH SPRING	1		
	7	SLC-RP1SVM	HEAD MOUNT ASSY	1		
	8	VKY3149-002	CASSETTE SP.	1		
	9	LV31786-001A	PLAY SW LEVER	1		
	10	VKS1166-003	CONTROL CAM	1		
	11	VKW5279-001	HEAD BASE SP(R)	1		
	12	VKW5280-001	HEAD BASE SP(L)	1		
	13	LV41584-001A	BRAKE(R)	1		
	14	LV41585-002A	BRAKE(L)	1		
	15	QYSBSF2005Z	T.SCREW	1		
	16	VKS5603-00G	MAIN PULLEY ASY	1		
	17	VKS3785-001MM	FR ARM	1		
	18	VKW5284-002	SWING SPRING	1		
	19	VKS2278-003	TRIGGER ARM	1		
	20	VKW5301-001	FR SPRING	1		
	21	VKW5266-001	ELEVATOR SPRING	1		
	22	WDL214025	WASHER	1		
	23	QYSBSF2005Z	T.SCREW	1		
	24	VKS3786-00G	CLUTCH ASS'Y	1		
	25	VKF3205-00B	F.WHEEL ASSY(R)	1		
	26	WDL183425	SLIT WASHER	1		
	27	VKF3207-00B	F.WHEEL ASSY(L)	1		
	28	WDL173525-6	SLIT WASHER	1		
	29	VKZ3174-00A	DC SOLENOID	1		
	30	LV42234-001A	CAPSTAN BELT	1		
	31	MSI-5U2LWA	D.C.MOTOR ASS'Y	1		
	32	VKR4761-001	MOTOR PULLEY	1		
	33	QYSPSP2604Z	SCREW	2		
	34	QYSBSF2608Z	T.SCREW	3	FOR P.W.B.	

CD loading base assembly and parts list

Block No. M 3 M M

Grease
★ = G-474C
▲ = EBS0006-009B





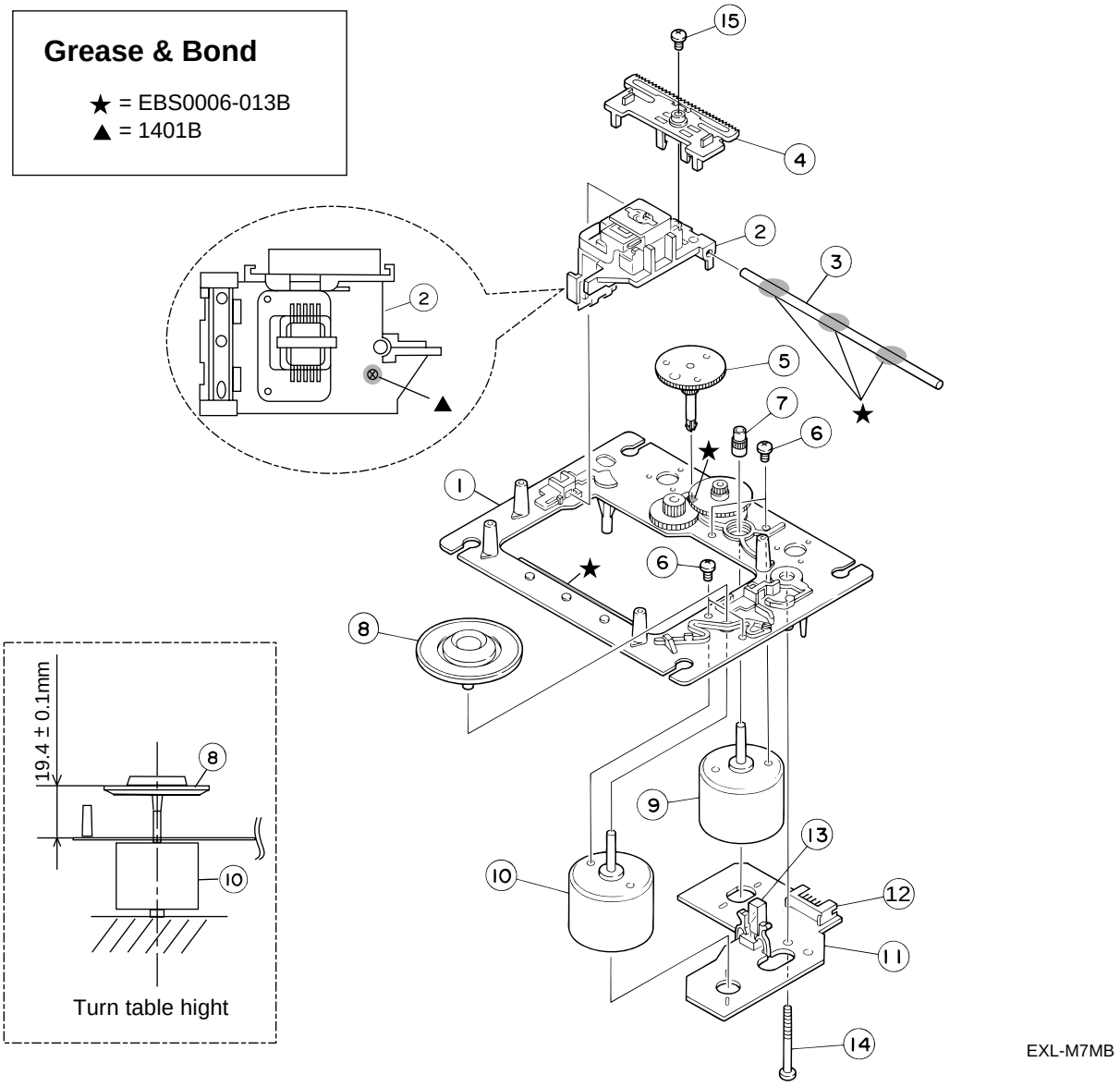
■ Parts list (CD loading base)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VYH1238-001	LODING BASE	1	ABS	
	2	MMN-6F1LB8K	MOTOR	1		
	3	QGF1201F3-05	CONNECTOR	1	CN505	
	4	QSW0472-001	SWITCH	1	S851	
	5	QYSPSPT2640Z	MINI SCREW	2		
	6	E75984-221	MOTOR PULLEY	1		
	7	E75950-002	BELT	1		
	8	E75985-221	GEAR(1)	1		
	9	E75986-221	GEAR(2)	1		
	10	E75987-221	GEAR(3)	1		
	11	E307162-331SS	LEVER	1		
	12	E307252-331SS	CAM PLATE	1		
	13	E65923-003	TAPPING SCREW	3		
	14	VYH7787-001	SPRING	1		
	15	QYSBSF3008Z	SCREW	1		
	16	E307179-332	E.BASE ASS'Y	1		
	17	E406871-001	SPRING	2		
	18	E406294-002	INSULATOR	4		
	19	E60912-005SS	SPEED NUT	1		
	20	VMW1329-101PP	PW BOARD	1		

CD mechanism assembly and parts list

Block No. M 4 M M



■ Parts list (CD mechanism)

Block No. M4MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	E102731-221SM	CD MECHA BASE A	1		
	2	OPTIMA-7B	CD PICK	1		
	3	E406777-002SM	CD SHAFT	1		
	4	LV31002-001A	CD RACK	1		
	5	E307745-441SM	CD GEAR 3	1		
	6	QYSDSP2003N	SCREW	4		
	7	E406750-442SM	PINION	1		
	8	EPB-001PK	T.TABLE ASSY	1		
	9	E406784-001	FEED MOTOR	1		
	10	QAR0130-001	SP MOTOR	1		
	11	EMW10190-441	CIR BOARD	1		
	12	QGA2001F1-06	6P PLUG ASSY	1	FOR P011	
	13	QSW0506-001	LEAF SW	1	FOR S001	
	14	E75832-221SS	SPECIAL SCREW	1	FOR M.CB	
	15	QYSDSF2606Z	SCREW	1		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN900	QGF1205C1-10	CONNECTOR	SLC	
	CN901	QGF1205C1-09	CONNECTOR	SLC	
	CN902	QGF1205F1-13	CONNECTOR	TUNER	
	CN903	QGF1205F1-13	CONNECTOR	CD	
	CN904	QGF1205F1-16	CONNECTOR	CD	
	CN906	QGA2501C1-05	5P CONNECTOR	H/P	
	CN907	QGD2504C1-04Z	SOCKET	P3 TRANS	
	CN931	QGF1205F1-17	CONNECTOR	TO FRONT BRD	
	C2000	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C2005	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2006	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2007	QTE1V06-106Z	E CAPACITOR		
	C2008	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2009	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2010	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2011	QFLM1HJ-272Z	M CAPACITOR	2700PF 5% 50V	
	C2012	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2013	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2014	QFVJ1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
	C2015	QFVJ1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
	C2016	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2017	QTE1C06-226Z	E CAPACITOR		
	C2018	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2019	QFVF1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C2026	QFLM1HJ-123Z	M CAPACITOR	.012MF 5% 50V	
	C2027	QDGB1HK-102Y	C CAPACITOR		
	C2028	QTE1V06-106Z	E CAPACITOR		
	C2029	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C2030	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C2031	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C2032	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C2033	QDXB1CM-332Y	C CAPACITOR		
	C2100	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C2105	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2106	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2107	QTE1V06-106Z	E CAPACITOR		
	C2108	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2109	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2110	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2111	QFLM1HJ-272Z	M CAPACITOR	2700PF 5% 50V	
	C2112	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2113	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2114	QFVJ1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
	C2115	QFVJ1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
	C2116	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2117	QTE1C06-226Z	E CAPACITOR		
	C2118	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2119	QFVF1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C2126	QFLM1HJ-123Z	M CAPACITOR	.012MF 5% 50V	
	C2127	QDGB1HK-102Y	C CAPACITOR		
	C2128	QTE1V06-106Z	E CAPACITOR		
	C2129	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C2130	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C2131	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C2132	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C2133	QDXB1CM-332Y	C CAPACITOR		
	C2200	QETM1EM-828	E CAPACITOR	8200MF 20% 25V	
	C2207	QFLK1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C2211	QDYB1CM-103Y	C CAPACITOR		
	C2212	EETC1HM-105ZJC	E CAPACITOR		
	C2213	EETC1CM-106ZJC	E CAPACITOR		
	C2214	EETC1HM-105ZJC	E CAPACITOR		
	C2215	EEKC1CM-226ZJC	E CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C2221	EETC1AM-107ZJC	E CAPACITOR		
	C2222	EEKC1CM-107ZJC	E CAPACITOR		
	C2224	EETC1CM-107ZJC	E CAPACITOR		
	C2225	QETC1AM-336Z	E CAPACITOR	33MF 20% 10V	
	C2226	EETC1HM-105ZJC	E CAPACITOR		
	C2229	EETC1EM-106ZJC	E CAPACITOR		
	C2230	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2231	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2232	QFLM1HJ-563Z	M CAPACITOR	.056MF 5% 50V	
	C2233	QFLM1HJ-563Z	M CAPACITOR	.056MF 5% 50V	
	C2234	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C2235	EETC1HM-225ZJC	E CAPACITOR		
	C2503	QDGB1HK-102Y	C CAPACITOR		
	C3201	EETC1CM-107ZJC	E CAPACITOR		
	C3202	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C3203	EETC1CM-107ZJC	E CAPACITOR		
	C3204	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C3205	EETC1CM-107ZJC	E CAPACITOR		
	C3206	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C3222	QFVJ1HJ-334Z	M CAPACITOR	.33MF 5% 50V	
	C7001	QCSB1HJ-200Y	C CAPACITOR	20PF 5% 50V	
	C7002	QCSB1HJ-220Y	C CAPACITOR	22PF 5% 50V	
	C7003	QDGB1HK-102Y	C CAPACITOR		
	C7004	EEKC1AM-107ZJC	E CAPACITOR		
	C7005	QDYB1CM-103Y	C CAPACITOR		
	C7006	QCSB1HJ-180Y	C CAPACITOR	18PF 5% 50V	
	C7007	QCSB1HJ-180Y	C CAPACITOR	18PF 5% 50V	
	C7008	EETB0JM-228JC	E CAPACITOR		
	C7009	EETC1HM-225ZJC	E CAPACITOR		
	C7010	EETC1HM-475ZJC	E CAPACITOR		
	C7011	EETC1CM-107ZJC	E CAPACITOR		
	C7012	QCFB1HZ-104Y	C CAPACITOR	.10MF +80:-20%	
	C7041	QDYB1CM-103Y	C CAPACITOR		
	C7061	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C7063	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C7108	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7111	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7113	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C7115	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7123	QDGB1HK-102Y	C CAPACITOR		
	C7128	QDGB1HK-102Y	C CAPACITOR		
	C7135	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7136	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7144	QDYB1CM-103Y	C CAPACITOR		
	C7149	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C7152	QDGB1HK-102Y	C CAPACITOR		
	D2200	1SS133-T2	SI DIODE		
	D2201	1SS133-T2	SI DIODE		
	D2202	MTZJ6.8B-T2	Z DIODE		
	D2203	1SS133-T2	SI DIODE		
	D2204	1N4003S-T5	SI DIODE		
	D2205	1SS133-T2	SI DIODE		
	D2206	1SS133-T2	SI DIODE		
	D2212	1SS133-T2	SI DIODE		
	D2213	1SS133-T2	SI DIODE		
	D3218	1SS133-T2	SI DIODE		
	D3219	MTZJ8.2C-T2	Z DIODE		
	D3220	MTZJ11B-T2	Z DIODE		
	D3221	MTZJ11B-T2	Z DIODE		
	D7001	1SS133-T2	SI DIODE	US5V	
	D7002	1SS133-T2	SI DIODE		
	D7003	1SS133-T2	SI DIODE	RESET	
	D7004	1SS133-T2	SI DIODE	BACK UP	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	D7005	1SS133-T2	SI DIODE	US5V	
	D7006	1SS133-T2	SI DIODE		
	D7007	MTZJ5.1C-T2	Z DIODE	BACK UP CONT.	
	D7008	MTZJ8.2B-T2	DIODE		
	D7061	1SS133-T2	SI DIODE		
	D7071	1SS133-T2	SI DIODE		
⚠	F3000	QMF51W2-1R0-J8	FUSE		
	IC901	LC75345M-X	IC		
⚠	IC905	LA4628	IC		
	IC910	L4909	IC		
	IC931	UPD780055GC-029	IC	SYSTEM MICOM	
	IC932	KIA78S06P-T	IC	US6V REG	
	J 900	QNN0215-001	PIN JACK		
	J 901	QNB0117-001	SPK TERMINAL		
	K2200	QQR0621-001Z	FERRITE BEADS		
	K7001	QQR0621-001Z	FERRITE BEADS		
	K7002	QQR0621-001Z	FERRITE BEADS		
	K7003	QQR0621-001Z	FERRITE BEADS		
	L2200	QQR0797-001	INDUCTOR		
	L2201	QQR0797-001	INDUCTOR		
	L7001	QQL231K-100Y	INDUCTOR	US5V	
	L7002	QQL231K-470Y	INDUCTOR	AVDD & VDD	
	L7003	QQL231K-4R7Y	INDUCTOR	AVREF	
	PP900	QZW0007-001	POST PIN		
	PP901	QZW0007-001	POST PIN		
	O2206	2SC2412K/R/-X	TRANSISTOR		
	O2207	2SC2412K/R/-X	TRANSISTOR		
	O2208	DTA143EKA-X	TRANSISTOR		
	O2209	2SC2412K/R/-X	TRANSISTOR		
	Q2210	2SC2412K/R/-X	TRANSISTOR		
	O2211	2SC2001/LK/-T	TRANSISTOR		
	O2212	2SC2412K/R/-X	TRANSISTOR		
	O2213	2SC2412K/R/-X	TRANSISTOR		
	O2214	DTA143EKA-X	TRANSISTOR		
	Q7001	2SA1037AK/RS/-X	TRANSISTOR	SW5V	
	O7002	DTC114TKA-X	TRANSISTOR	RESET SW	
	O7003	2SC2412K/R/-X	TRANSISTOR	BACKUP CONT	
	O7031	2SC2412K/R/-X	TRANSISTOR	POUT SW	
	Q7041	2SC2412K/R/-X	TRANSISTOR	PHOTO BUFFER	
	O7061	DTC114TKA-X	TRANSISTOR		
	O7062	DTC114TKA-X	TRANSISTOR		
	R2000	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R2001	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R2006	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2007	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R2008	QRE141J-912Y	C RESISTOR	9.1K 5% 1/4W	
	R2009	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R2010	QRE141J-752Y	C RESISTOR	7.5K 5% 1/4W	
	R2011	QRE141J-752Y	C RESISTOR	7.5K 5% 1/4W	
	R2012	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R2013	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2014	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R2015	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R2016	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R2017	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R2025	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R2026	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R2027	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2028	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R2029	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R2030	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R2031	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R2032	QRE141J-471Y	C RESISTOR	470 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R2040	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R2041	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R2047	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R2100	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R2101	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R2106	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2107	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R2108	QRE141J-912Y	C RESISTOR	9.1K 5% 1/4W	
	R2109	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R2110	QRE141J-752Y	C RESISTOR	7.5K 5% 1/4W	
	R2111	QRE141J-752Y	C RESISTOR	7.5K 5% 1/4W	
	R2112	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R2113	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2114	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R2115	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R2116	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R2117	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R2125	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R2126	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R2127	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2128	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R2129	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R2130	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R2131	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R2132	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R2140	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R2141	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R2147	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R2200	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R2207	QRE141J-513Y	C RESISTOR	51K 5% 1/4W	
	R2208	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R2209	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2213	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R2214	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R2218	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R2221	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R2222	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2224	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2231	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R3200	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R3201	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R3202	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R3203	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R3204	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R3205	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R3206	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R3207	QRE141J-820Y	C RESISTOR	82 5% 1/4W	
	R3209	QRE141J-820Y	C RESISTOR	82 5% 1/4W	
	R7001	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7002	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7003	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R7004	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7005	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7006	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R7007	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R7008	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R7041	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R7042	QRE141J-394Y	C RESISTOR	390K 5% 1/4W	
	R7043	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R7062	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7064	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7065	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R7075	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R7076	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R7077	QRE141J-913Y	C RESISTOR	91K 5% 1/4W	
	R7078	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7079	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R7101	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7102	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7103	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7106	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7108	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7109	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7110	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7111	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7112	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7113	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7114	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7115	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7116	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7117	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7118	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7119	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7120	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7122	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7123	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7124	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R7126	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7127	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R7128	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7129	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7130	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7131	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7132	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7133	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7134	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7136	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7137	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7139	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7141	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7142	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7143	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7144	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7145	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7146	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7147	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7148	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7149	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7150	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7151	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7152	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7153	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7154	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7155	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7157	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7162	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7201	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R7202	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7203	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R7206	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R7214	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R7215	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R7217	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7218	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7232	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R7236	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R7239	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7247	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7252	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7253	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R7254	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7255	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	X7001	QAX0410-001Z	CERA LOCK		
	X7002	QAX0401-001	CRYSTAL		
	Z3001	QNG0020-001Z	FUSE CLIP		
	Z3002	QNG0020-001Z	FUSE CLIP		

■ **Electrical parts list (Front board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN932	QGF1205F1-17	CONNECTOR		
	C1000	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C1001	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C1002	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C1003	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C7301	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C7302	QDGB1HK-102Y	C CAPACITOR		
	C7303	QDYB1CM-103Y	C CAPACITOR		
	C7304	QDYB1CM-103Y	C CAPACITOR		
	C7305	QDYB1CM-103Y	C CAPACITOR		
	C7306	QDYB1CM-103Y	C CAPACITOR		
	C7307	QDYB1CM-103Y	C CAPACITOR		
	C7341	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C7351	QDYB1CM-103Y	C CAPACITOR		
	C7352	QDYB1CM-103Y	C CAPACITOR		
	DI934	QLD0160-001	LCD	LCD DISPLAY	
⚠	D1000	6A10E2	SI DIODE		
⚠	D1001	6A10E2	SI DIODE		
⚠	D1002	6A10E2	SI DIODE		
⚠	D1003	6A10E2	SI DIODE		
	D7321	QLMP-AL49	LED	BACK LIGHT	
	D7322	QLMP-AL49	LED	BACK LIGHT	
	D7323	QLMP-AL49	LED	BACK LIGHT	
	D7331	SPR-39MVWF	LED	POW INDICATOR	
	EP940	E409182-001SM	GRAND TERMINAL		
	FW931	QUM023-05Z4Z4	FLAT WIRE		
	FW943	QUM154-17DGZ4	FLAT WIRE		
⚠	F1000	QMF51W2-R40-J8	FUSE		
⚠	F1001	QMF51W2-5R0-J8	FUSE		
	IC933	GP1U261X	IR DETECT UNIT	IR RX	
	IC934	NJU6433FG1	IC	LCD DRIVER	
	JS731	QSW0917-001	R ENCODER	VOLUME	
⚠	J1000	QGA7901C1-02	CONNECTOR		
	J5000	QNS0170-001	JACK		
	K5020	QQR0779-001Z	INDUCTOR		
	K5021	QQR0779-001Z	INDUCTOR		
⚠	L1000	QQR1145-001	LINE FILTER	EMC FILTER	
	L5031	QQL231K-470Y	INDUCTOR		
	L5032	QQL231K-470Y	INDUCTOR		
	L5034	QQL231K-470Y	INDUCTOR		
	O7331	KRC111M-T	TRANSISTOR		
	R5000	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R5001	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R7301	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7302	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7303	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R7304	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R7305	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7306	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R7307	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R7308	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R7309	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7310	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R7311	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7312	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7313	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R7315	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R7316	QRE141J-433Y	C RESISTOR	43K 5% 1/4W	
	R7321	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R7322	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R7323	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R7331	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R7341	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R7342	QRE141J-134Y	C RESISTOR	130K 5% 1/4W	
	S7302	QSW0825-001Z	TACT SWITCH	CLOCK	
	S7303	QSW0825-001Z	TACT SWITCH	TIMER	
	S7304	QSW0825-001Z	TACT SWITCH	REVERSE	
	S7305	QSW0825-001Z	TACT SWITCH	CD REC	
	S7306	QSW0825-001Z	TACT SWITCH	AUX	
	S7307	QSW0825-001Z	TACT SWITCH	TUNER	
	S7308	QSW0825-001Z	TACT SWITCH	TAPE	
	S7309	QSW0825-001Z	TACT SWITCH	CD	
	S7310	QSW0825-001Z	TACT SWITCH	DOWN	
	S7311	QSW0825-001Z	TACT SWITCH	STOP	
	S7312	QSW0825-001Z	TACT SWITCH	OPEN/CLOSE	
	S7313	QSW0825-001Z	TACT SWITCH	SOUND	
	S7314	QSW0825-001Z	TACT SWITCH	AHB-PRO	
	S7315	QSW0825-001Z	TACT SWITCH	POWER	
	S7316	QSW0825-001Z	TACT SWITCH	UP	
	W5000	QJK017-051400	WIRE		
	Z1000	QNG0020-001Z	FUSE CLIP		
	Z1001	QNG0020-001Z	FUSE CLIP		
	Z1002	QNG0020-001Z	FUSE CLIP		
	Z1003	QNG0020-001Z	FUSE CLIP		

■ **Electrical parts list (CD servo board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR		
	C 602	NCB31HK-102X	C CAPACITOR		
	C 603	NCB31HK-223X	C CAPACITOR		
	C 604	NCB31HK-223X	C CAPACITOR		
⚠	C 605	NCS31HJ-151X	C CAPACITOR		
	C 606	NCS31HJ-560X	C CAPACITOR		
⚠	C 610	NCB31CK-273X	C CAPACITOR		
	C 612	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 613	NCF31AZ-105X	C CAPACITOR		
	C 614	NCB31CK-273X	C CAPACITOR		
	C 615	NCB31HK-472X	C CAPACITOR		
	C 616	NCB31HK-103X	C CAPACITOR		
	C 617	NCS31HJ-331X	C CAPACITOR		
	C 619	NCS31HJ-470X	C CAPACITOR		
	C 621	NCF31AZ-105X	C CAPACITOR		
⚠	C 622	NCB31CK-473X	C CAPACITOR		
	C 623	NCF31AZ-105X	C CAPACITOR		
	C 624	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 631	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 632	NCF31AZ-105X	C CAPACITOR		
	C 633	NCB31HK-223X	C CAPACITOR		
	C 641	NCB31HK-223X	C CAPACITOR		
	C 642	NCB31HK-222X	C CAPACITOR		
	C 643	NCS31HJ-821X	C CAPACITOR		
	C 651	NCS31HJ-120X	C CAPACITOR		
	C 652	NCS31HJ-120X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR		
	C 654	NCS31HJ-151X	C CAPACITOR		
	C 655	NCB31CK-104X	C CAPACITOR		
	C 656	NCB31CK-104X	C CAPACITOR		
	C 657	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 658	NCB31CK-104X	C CAPACITOR		
	C 661	NCS31HJ-471X	C CAPACITOR		
	C 663	NCB31HK-223X	C CAPACITOR		
	C 664	NCB31HK-223X	C CAPACITOR		
	C 665	NCB31AK-154X	C CAPACITOR		
	C 669	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 670	NCS31HJ-151X	C CAPACITOR		
	C 671	NCS31HJ-151X	C CAPACITOR		
	C 672	NCS31HJ-151X	C CAPACITOR		
	C 673	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 676	NCB31CK-104X	C CAPACITOR		
	C 677	NCB31CK-104X	C CAPACITOR		
	C 679	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 680	NCB31CK-104X	C CAPACITOR		
	C 681	NCB31AK-334X	C CAPACITOR		
	C 693	NCB31HK-222X	C CAPACITOR		
	C 694	NCB31HK-222X	C CAPACITOR		
	C 801	NCB31HK-682X	C CAPACITOR		
	C 802	NCB31HK-123X	C CAPACITOR		
	C 811	NCS31HJ-391X	C CAPACITOR		
	C 812	NCS31HJ-391X	C CAPACITOR		
	C 813	NCS31HJ-391X	C CAPACITOR		
	C 814	NCS31HJ-391X	C CAPACITOR		
	C 815	QEQF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 821	NCF31AZ-105X	C CAPACITOR		
	C 822	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 823	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 824	NCB31HK-222X	C CAPACITOR		
	C 831	EEKJ1CM-107ZJC	E CAPACITOR		
	C 832	NCB31HK-103X	C CAPACITOR		
	C 833	NCB31CK-104X	C CAPACITOR		
	CN601	QGF1016F1-15	15FFC CONNECTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	CN606	QGF1205F1-05	CONNECTOR		
	CN651	QGF1205F1-16	CONNECTOR		
	CN652	QGF1205F1-13	CONNECTOR		
	CN801	QGA2001C1-06	6P PLUG ASSY		
	D 601	1SS355-X	DIODE		
	D 602	1SS355-X	DIODE		
	D 831	MTZJ5.6B-T2	Z DIODE		
	IC601	AN22000A	IC		
	IC651	MN662748RPM	IC		
	IC801	LA6541-X	IC		
	IC802	LB1641	IC		
	L 831	QQL244K-100Z	INDUCTOR		
	O 631	2SA1037AK/RS/-X	TRANSISTOR		
	O 801	2SA952/LK/-T	TRANSISTOR		
⚠	R 601	NRSA63J-224X	MG RESISTOR		
⚠	R 602	NRSA63J-274X	MG RESISTOR		
	R 603	NRSA63J-124X	MG RESISTOR		
	R 604	NRSA63J-274X	MG RESISTOR		
	R 605	NRSA63J-0R0X	MG RESISTOR		
	R 606	NRSA63J-0R0X	MG RESISTOR		
	R 607	NRSA63J-623X	MG RESISTOR		
	R 610	NRSA63J-822X	MG RESISTOR		
	R 611	NRSA63J-822X	MG RESISTOR		
	R 612	NRSA63J-223X	MG RESISTOR		
	R 613	NRSA63J-222X	MG RESISTOR		
	R 617	NRSA63J-332X	MG RESISTOR		
⚠	R 618	NRSA63J-153X	MG RESISTOR		
⚠	R 619	NRSA63J-153X	MG RESISTOR		
	R 620	NRSA63J-564X	MG RESISTOR		
	R 621	NRSA63J-564X	MG RESISTOR		
	R 631	NRSA63J-2R2X	MG RESISTOR		
	R 632	NRSA63J-100X	MG RESISTOR		
	R 634	NRSA63J-120X	MG RESISTOR		
	R 635	NRSA63J-121X	MG RESISTOR		
	R 636	NRSA63J-100X	MG RESISTOR		
	R 641	NRSA63J-154X	MG RESISTOR		
	R 642	NRSA63J-394X	MG RESISTOR		
	R 643	NRSA63J-223X	MG RESISTOR		
	R 647	NRSA63J-0R0X	MG RESISTOR		
	R 651	NRSA63J-102X	MG RESISTOR		
	R 652	NRSA63J-102X	MG RESISTOR		
	R 653	NRSA63J-102X	MG RESISTOR		
	R 654	NRSA63J-101X	MG RESISTOR		
	R 655	NRSA63J-102X	MG RESISTOR		
	R 656	NRSA63J-102X	MG RESISTOR		
	R 657	NRSA63J-0R0X	MG RESISTOR		
	R 658	NRSA63J-0R0X	MG RESISTOR		
	R 659	NRSA63J-0R0X	MG RESISTOR		
⚠	R 661	NRSA63J-393X	MG RESISTOR		
	R 662	NRSA63J-683X	MG RESISTOR		
	R 663	NRSA63J-124X	MG RESISTOR		
	R 664	NRSA63J-331X	MG RESISTOR		
	R 665	NRSA63J-271X	MG RESISTOR		
	R 666	NRSA63J-221X	MG RESISTOR		
	R 667	NRSA63J-4R7X	MG RESISTOR		
	R 670	NRSA63J-101X	MG RESISTOR		
	R 681	NRSA63J-272X	MG RESISTOR		
	R 682	NRSA63J-102X	MG RESISTOR		
	R 683	NRSA63J-105X	MG RESISTOR		
	R 684	NRSA63J-155X	MG RESISTOR		
	R 691	NRSA63J-102X	MG RESISTOR		
	R 692	NRSA63J-102X	MG RESISTOR		
	R 801	NRSA63J-272X	MG RESISTOR		

■ **Electrical parts list (CD servo board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 802	NRSA63J-392X	MG RESISTOR		
	R 803	NRSA63J-222X	MG RESISTOR		
	R 804	NRSA63J-224X	MG RESISTOR		
	R 805	NRSA63J-133X	MG RESISTOR		
	R 806	NRSA63J-243X	MG RESISTOR		
	R 807	NRSA63J-122X	MG RESISTOR		
	R 808	NRSA63J-273X	MG RESISTOR		
	R 809	NRSA63J-122X	MG RESISTOR		
	R 812	NRSA63J-152X	MG RESISTOR		
	R 821	NRSA63J-0R0X	MG RESISTOR		
	R 822	NRSA63J-473X	MG RESISTOR		
	R 831	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	X 651	QAX0413-001Z	CRYSTAL		

■ Electrical parts list (Tuner board)

Block No. 04

⚠	Item	Parts number	Parts name	Remarks	Area
	C 1	NCB21HK-223X	C CAPACITOR		
	C 2	NCB21HK-103X	C CAPACITOR		
	C 3	EETC1CM-106ZJC	E CAPACITOR		
	C 4	NCB21HK-103X	C CAPACITOR		
	C 6	NCB21HK-222X	C CAPACITOR		
	C 7	NCB21HK-102X	C CAPACITOR		
	C 8	NCB21HK-102X	C CAPACITOR		
	C 9	NCB21HK-102X	C CAPACITOR		
	C 10	NCS21HJ-120X	C CAPACITOR		
	C 11	NCB21HK-223X	C CAPACITOR		
	C 12	NCB21HK-473X	C CAPACITOR		
	C 13	NCS21HJ-120X	C CAPACITOR		
	C 14	EEKC1AM-107ZJC	E CAPACITOR		
	C 15	NCS21HJ-120X	C CAPACITOR		
	C 16	NCS21HJ-120X	C CAPACITOR		
	C 17	NCB21HK-392X	C CAPACITOR		
	C 18	QEQ61HM-474Z	NP E CAPACITOR	.47MF 20% 50V	
	C 19	NCB21HK-473X	C CAPACITOR		
	C 20	NCB21HK-102X	C CAPACITOR		
	C 21	NCB21HK-223X	C CAPACITOR		
	C 22	NCS21HJ-151X	C CAPACITOR		
	C 23	NCS21HJ-151X	C CAPACITOR		
	C 24	NCS21HJ-151X	C CAPACITOR		
	C 25	EEKC1AM-107ZJC	E CAPACITOR		
	C 26	NCB21HK-102X	C CAPACITOR		
	C 27	NCB21HK-102X	C CAPACITOR		
	C 30	EEKC1CM-107ZJC	E CAPACITOR		
	C 31	EEKC1CM-226ZJC	E CAPACITOR		
	C 32	NCB21HK-473X	C CAPACITOR		
	C 33	NCB21HK-473X	C CAPACITOR		
	C 34	NCB21HK-223X	C CAPACITOR		
	C 35	NCB21HK-473X	C CAPACITOR		
	C 36	EEKC1HM-105ZJC	E CAPACITOR		
	C 37	EEKC1HM-105ZJC	E CAPACITOR		
	C 38	EETC1HM-224ZJC	E CAPACITOR		
	C 39	EETC1HM-105ZJC	E CAPACITOR		
	C 40	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 41	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 42	NCB21HK-182X	C CAPACITOR		
	C 43	NCB21HK-182X	C CAPACITOR		
	C 44	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 45	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 46	NCB21HK-223X	C CAPACITOR		
	C 47	EETC1HM-105ZJC	E CAPACITOR		
	C 48	NCB21HK-222X	C CAPACITOR		
	C 49	NCS21HJ-471X	C CAPACITOR		
	C 50	EETC1CM-226ZJC	E CAPACITOR		
	C 51	EEKC1HM-105ZJC	E CAPACITOR		
	C 52	QFVJ1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C 53	EETC1CM-226ZJC	E CAPACITOR		
	C 54	NCB21HK-473X	C CAPACITOR		
	C 55	NCS21HJ-330X	C CAPACITOR		
	C 56	NCS21HJ-100X	C CAPACITOR		
	C 57	NCB21HK-102X	C CAPACITOR		
	C 58	NCB21HK-473X	C CAPACITOR		
	C 59	NCB21HK-102X	C CAPACITOR		
	C 70	NCS21HJ-220X	C CAPACITOR		
	C 71	NCS21HJ-220X	C CAPACITOR		
	C 72	NCB21HK-561X	C CAPACITOR		
	C 73	NCB21HK-104X	C CAPACITOR		
	C 74	NCB21HK-104X	C CAPACITOR		
	C 75	EETC1HM-106ZJC	E CAPACITOR		
	C 76	NCB21HK-331X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	CF 1	QAX0420-001	C FILTER		
	CF 2	QAX0458-001Z	C FILTER		
	CF 3	QAX0610-001Z	C DISCRIMINATOR		
	CN 1	QGF1205F1-13	CONNECTOR		
	D 1	1SS133-T2	SI DIODE		
	D 2	1SS133-T2	SI DIODE		
	D 3	1SS133-T2	SI DIODE		
	D 4	1SS133-T2	SI DIODE		
	D 11	1SS133-T2	SI DIODE		
	IC 1	LA1838	IC		
	IC 2	LC72136N	IC		
	IC 3	LC72723	IC(RDS)		
	J 1	QNB0014-001	ANT TERMINAL		
	L 1	QQR1094-001	COIL BLOCK		
	L 2	QQL231K-330Y	INDUCTOR		
	L 3	QQL231K-4R7Y	INDUCTOR		
	L 70	QQL231K-101Y	INDUCTOR		
	O 1	2SC2814/4-5/-X	TRANSISTOR		
	O 2	2SC1623/5-6/-X	TRANSISTOR		
	O 3	2SC1623/5-6/-X	TRANSISTOR		
	O 4	DTA114YKA-X	TRANSISTOR		
	O 5	DTA114YKA-X	TRANSISTOR		
	R 2	NRSA02J-331X	MG RESISTOR		
	R 3	NRSA02J-224X	MG RESISTOR		
	R 4	NRSA02J-331X	MG RESISTOR		
	R 5	NRSA02J-560X	MG RESISTOR		
	R 6	NRSA02J-120X	MG RESISTOR		
	R 10	NRSA02J-222X	MG RESISTOR		
	R 11	NRSA02J-472X	MG RESISTOR		
	R 12	NRSA02J-472X	MG RESISTOR		
	R 13	NRSA02J-103X	MG RESISTOR		
	R 14	NRSA02J-104X	MG RESISTOR		
	R 15	NRSA02J-222X	MG RESISTOR		
	R 16	NRSA02J-472X	MG RESISTOR		
⚠	R 17	QRZ9005-680X	F RESISTOR	68 1/0W	
	R 18	NRSA02J-102X	MG RESISTOR		
	R 19	NRSA02J-102X	MG RESISTOR		
	R 20	NRSA02J-102X	MG RESISTOR		
	R 21	NRSA02J-562X	MG RESISTOR		
	R 22	NRSA02J-472X	MG RESISTOR		
	R 23	NRSA02J-182X	MG RESISTOR		
	R 24	NRSA02J-103X	MG RESISTOR		
	R 25	NRSA02J-331X	MG RESISTOR		
	R 26	NRSA02J-222X	MG RESISTOR		
	R 27	NRSA02J-103X	MG RESISTOR		
	R 28	NRSA02J-103X	MG RESISTOR		
	R 29	NRSA02J-103X	MG RESISTOR		
	R 30	NRSA02J-122X	MG RESISTOR		
	R 31	NRSA02J-102X	MG RESISTOR		
	R 32	NRSA02J-102X	MG RESISTOR		
	R 33	NRSA02J-331X	MG RESISTOR		
	R 34	NRSA02J-470X	MG RESISTOR		
	R 35	NRSA02J-562X	MG RESISTOR		
	R 36	NRSA02J-332X	MG RESISTOR		
	R 37	NRSA02J-103X	MG RESISTOR		
	R 38	NRSA02J-393X	MG RESISTOR		
	R 39	NRSA02J-393X	MG RESISTOR		
	R 40	NRSA02J-393X	MG RESISTOR		
	R 41	NRSA02J-332X	MG RESISTOR		
	R 60	NRSA02J-0R0X	MG RESISTOR		
	R 70	NRSA02J-103X	MG RESISTOR		
	R 71	NRSA02J-102X	MG RESISTOR		
	R 72	NRSA02J-102X	MG RESISTOR		
	R 73	NRSA02J-102X	MG RESISTOR		
	T 1	QQR0793-001	IFT		
	TU 1	QAU0160-001	FRONT END		
	X 1	QAX0402-001	CRYSTAL		
	X 70	QAX0263-001Z	CRYSTAL		

■ **Electrical parts list (Head amplifier board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 101	NCS21HJ-821X	C CAPACITOR		
	C 102	NCS21HJ-221X	C CAPACITOR		
	C 103	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 104	NCB21HK-333X	C CAPACITOR		
	C 105	NCB21HK-222X	C CAPACITOR		
	C 106	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 107	NCS21HJ-561X	C CAPACITOR		
	C 108	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 109	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 110	NCB21HK-682X	C CAPACITOR		
	C 111	NCB21HK-152X	C CAPACITOR		
	C 113	NCB21HK-393X	C CAPACITOR		
	C 121	NCS21HJ-331X	C CAPACITOR		
	C 201	NCS21HJ-821X	C CAPACITOR		
	C 202	NCS21HJ-221X	C CAPACITOR		
	C 203	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 204	NCB21HK-333X	C CAPACITOR		
	C 205	NCB21HK-222X	C CAPACITOR		
	C 206	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 207	NCS21HJ-561X	C CAPACITOR		
	C 208	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 209	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 210	NCB21HK-682X	C CAPACITOR		
	C 211	NCB21HK-152X	C CAPACITOR		
	C 213	NCB21HK-393X	C CAPACITOR		
	C 221	NCS21HJ-331X	C CAPACITOR		
	C 301	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 302	NCB21HK-393X	C CAPACITOR		
	C 303	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 304	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 305	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 306	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 307	NCB21HK-103X	C CAPACITOR		
	C 308	NCB21HK-152X	C CAPACITOR		
	C 310	NCB21HK-223X	C CAPACITOR		
	C 313	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 314	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 316	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 319	QFLM1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 331	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 334	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 371	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 374	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 376	NCB21HK-103X	C CAPACITOR		
	CN 31	QGF1201F3-06	CONNECTOR	PRI/HEAD	
	CN 32	QGB2011M1-10	B TO B CONNECTOR	PRI/MECHA	
	CN 33	QGF1205F1-09	CONNECTOR	PRI/MICON	
	CN 34	QGF1201F3-10	CONNECTOR	PRI/AMP	
	D 375	MA3051/M/-X	ZENER DIODE		
	FW 31	QUM024-06A2Z3	PARA RIBON WIRE		
	IC 31	BA3126N	IC	HEAD SW	
	IC 32	AN7317	IC	PB&REC	
	IC 33	BU4094BCF-X	IC		
	L 301	QQR1118-001	OSC COIL(BIAS)		
	L 303	QQL244K-100Z	INDUCTOR		
	O 101	DTC114TKA-X	TRANSISTOR	70U/12U	
	O 103	DTC114TKA-X	TRANSISTOR	TAR	
	O 201	DTC114TKA-X	TRANSISTOR	70U/12U	
	O 203	DTC114TKA-X	TRANSISTOR	TAR	
	O 302	2SC2001/K/-T	TRANSISTOR	OSC	
	O 305	2SC2001/LK/-T	TRANSISTOR	SW	
	O 321	DTC144EKA-X	TRANSISTOR	BUFFER	
	O 331	DTC114TKA-X	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	O 371	2SA952/LK/-T	TRANSISTOR	MOTER+B	
	O 372	DTC124EKA-X	TRANSISTOR		
	O 375	2SB562/C/-T	TRANSISTOR	SOLENOID DRIVE	
	O 376	2SC2412K/RS/-X	CHIP TRANSISTOR		
	R 101	NRSA63J-220X	MG RESISTOR		
	R 102	NRSA63J-182X	MG RESISTOR		
	R 103	NRSA63J-242X	MG RESISTOR		
	R 104	NRSA63J-122X	MG RESISTOR		
	R 105	NRSA63J-104X	MG RESISTOR		
	R 106	NRSA63J-332X	MG RESISTOR		
	R 107	NRSA63J-123X	MG RESISTOR		
	R 108	NRSA63J-562X	MG RESISTOR		
	R 109	NRSA63J-102X	MG RESISTOR		
	R 110	NRSA63J-272X	MG RESISTOR		
	R 111	NRSA63J-363X	MG RESISTOR		
	R 112	NRSA63J-222X	MG RESISTOR		
	R 116	NRSA63J-102X	MG RESISTOR		
	R 121	NRSA63J-153X	MG RESISTOR		
	R 122	NRSA63J-102X	MG RESISTOR		
	R 201	NRSA63J-220X	MG RESISTOR		
	R 202	NRSA63J-182X	MG RESISTOR		
	R 203	NRSA63J-242X	MG RESISTOR		
	R 204	NRSA63J-122X	MG RESISTOR		
	R 205	NRSA63J-104X	MG RESISTOR		
	R 206	NRSA63J-332X	MG RESISTOR		
	R 207	NRSA63J-123X	MG RESISTOR		
	R 208	NRSA63J-562X	MG RESISTOR		
	R 209	NRSA63J-102X	MG RESISTOR		
	R 210	NRSA63J-272X	MG RESISTOR		
	R 211	NRSA63J-363X	MG RESISTOR		
	R 212	NRSA63J-222X	MG RESISTOR		
	R 216	NRSA63J-102X	MG RESISTOR		
	R 221	NRSA63J-153X	MG RESISTOR		
	R 222	NRSA63J-102X	MG RESISTOR		
	R 301	NRS181J-221X	MG RESISTOR		
	R 303	NRSA63J-393X	MG RESISTOR		
	R 304	NRS181J-101X	MG RESISTOR		
	R 305	NRSA63J-222X	MG RESISTOR		
	R 310	QRJ146J-4R7X	UNF C RESISTOR	4.7 5% 1/4W	
	R 313	NRSA63J-2R2X	MG RESISTOR		
	R 314	NRSA63J-153X	MG RESISTOR		
	R 315	NRSA63J-101X	MG RESISTOR		
	R 327	NRSA63J-474X	MG RESISTOR		
	R 335	NRSA63J-152X	MG RESISTOR		
	R 336	NRSA63J-472X	MG RESISTOR		
	R 337	NRSA63J-332X	MG RESISTOR		
	R 338	NRSA63J-392X	MG RESISTOR		
	R 339	NRSA63J-222X	MG RESISTOR		
	R 340	NRS181J-391X	MG RESISTOR		
	R 341	NRSA63J-123X	MG RESISTOR		
	R 342	NRSA63J-203X	MG RESISTOR		
	R 343	NRSA63J-183X	MG RESISTOR		
	R 345	NRSA63J-222X	MG RESISTOR		
⚠	R 353	QRZ9005-100X	F RESISTOR	10 1/0W	
	R 371	NRSA63J-123X	MG RESISTOR		
	R 372	NRSA63J-102X	MG RESISTOR		
	R 375	NRSA02J-151X	MG RESISTOR	1/8W	
	R 376	NRSA63J-472X	MG RESISTOR		
	VR 31	QVP0008-203Z	SEMI V RESISTOR	BIAS ADJ	
	VR 37	QVP0008-103Z	SEMI.V.RESISTOR	TAPE SPEED ADJ	

■ **Electrical parts list (Cassette switch board)** **Block No. 06**

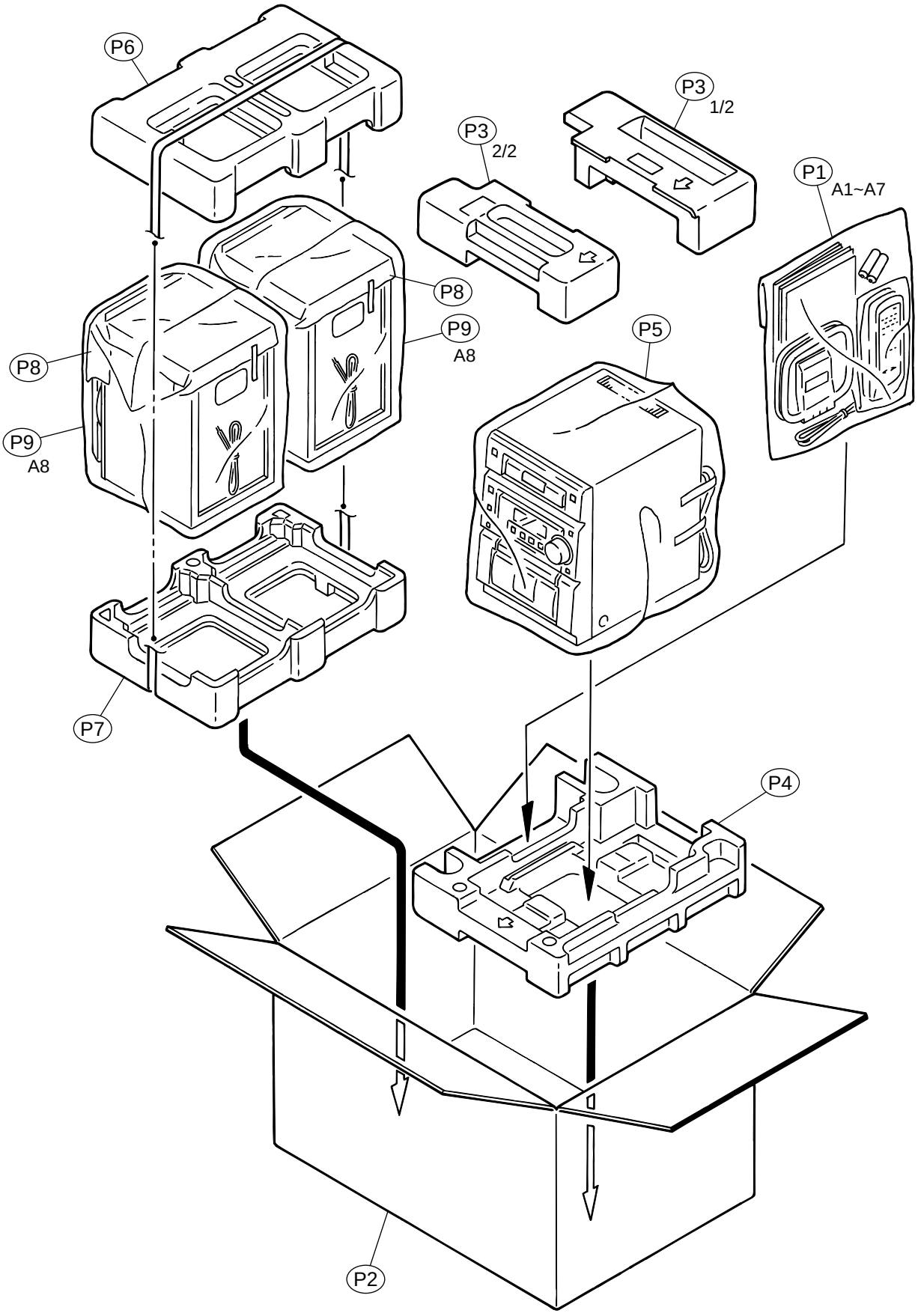
⚠	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGB2011L1-10	B TO B CONNECTOR		
	D 1	1SR139-400-T2	SI DIODE		
	IC 1	SG-105F3-BB,C	PHOTO SENSER		
	P 1	QNZ0104-001	POST PIN		
	SW 1	QSW0832-001	LEAF SWITCH	R.REC	
	SW 2	QSW0832-001	LEAF SWITCH	TAPE	
	SW 4	QSW0832-001	LEAF SWITCH	70U	
	SW 5	QSW0832-001	LEAF SWITCH	F.REC	
	SW 6	QSW0859-001	DETECT SWITCH		

< MEMO >

Packing materials and accessories parts list

Block No. M 5 M M

Block No. M 6 M M



■ Parts list (Packing)

Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPC02503515P	POLY BAG	1	FOR INST	
	P 2	GV20111-002A	PACKING CASE	1		
	P 3	GV10070-001A	TOP CUSHION	1	FRONT/REAR	
	P 4	GV10075-001A	BOTTOM CUSHION	1		
	P 5	QPC05006515P	POLY BAG	1	FOR SET	
	P 6	139763681053	TOP CUSHION	1		
	P 7	139763681054	BOTTOM CUSHION	1		
	P 8	138763001072	MIRROR MAT	2		
	P 9	138764601090	POLY BAG	2	FOR SPEAKER	

■ Parts list (Accessories)

Block No. M6MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	QAL0014-001	AM LOOP ANT	1		
	A 2	EWP503-001C	ANT.WIRE	1		
	A 3	GVT0053-008A	INST BOOK	1	ENG	B
		GVT0053-007A	INST BOOK	1	FRE, SPA, ITA	EN
		GVT0053-007A	INST BOOK	1	SWE, FIN, DAN, GER	EN
		GVT0053-006A	INST BOOK	1	GER, FRE, DUT	E
	A 4	BT-54013-1	WARRANTY CARD	1		
	A 5	VNA3000-204	REGIST.CARD	1		B
	A 6	RM-SUXP3R	REMOCON	1		
	A 7	----------	BATTERY	2		
	A 8	UXP3K-SPBOX	SPEAKER BOX	2		